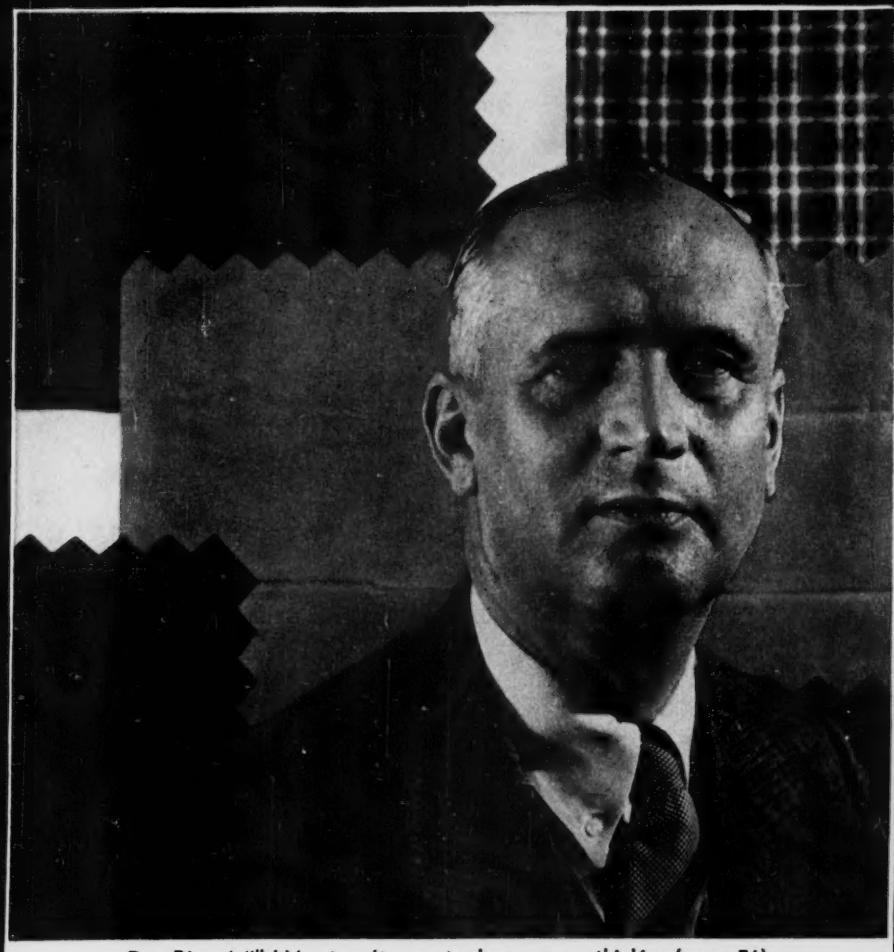


BUSINESS WEEK

Tax Traps

IN DEFENSE CONTROLS

PAGE 44

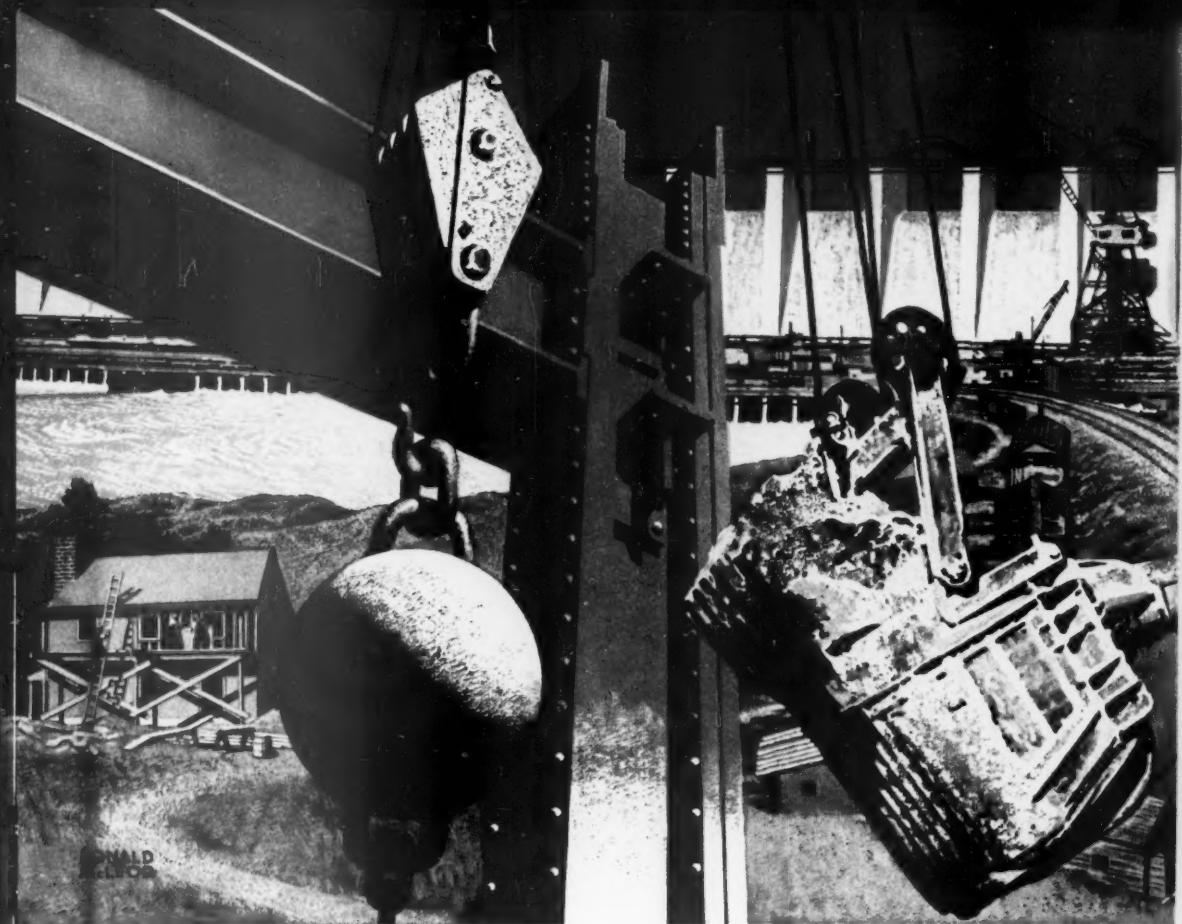


Dan River Mills' Newton: It pays to do your own thinking (page 56)

A McGRAW HILL PUBLICATION

APR. 21, 1951

TWENTY-FIVE CENTS



Construction... and The National City Bank of New York

In 1950, this country's builders measured, sawed, and hammered enough lumber to build a boardwalk twenty feet wide from New York City all the way to the moon! They laid some $5\frac{1}{2}$ billion bricks, mixed over 200 million barrels of cement, and drove untold tons of nails.

All this material, and much more, went into the greatest single year of building in the nation's history. A record number of homes started in 1950, almost 1,400,000, went a long way toward providing adequate housing for our growing population. The total value of all the homes, public buildings, factories, power plants, farm buildings, roads, dams and other construction in 1950 reached nearly 28 billion dollars.

These figures put construction firmly in third

place among the nation's industries, after food and machinery. This building is done by 210,000 builders and contractors and the more than two million people they employ. Many of them, as well as the companies from which they buy materials, use the services of The National City Bank of New York. The Bank has 67 Branches in Greater New York; 53 Branches overseas; and correspondent banks in every state and every commercially important city of the world. Its officers and staff are experienced in both domestic and foreign trade financing. It serves nation-wide and world-wide industry.

Member Federal Deposit Insurance Corporation

First in World Wide Banking

RESEARCH KEEPS

B.F. Goodrich

FIRST IN RUBBER



First step from cow's back to your feet

A typical example of B.F. Goodrich product improvement

YOU'RE looking at a first step in making a pair of shoes . . . new hides are dumped into that barrel, with acid, and tumbled round and round for hours. You can see how it's done—four rubber belts on each side of the barrel turn it much like a belt turns the fan on your automobile.

But turning that 8-foot barrel full of heavy hides, put a terrific strain on the belts. They broke often. Then the whole process stopped. No way to get a shoe to market.

The engineer of the tannery had

heard of B. F. Goodrich grommet belts that stand more hard service than any other. These replaced ordinary V belts and have already lasted 3 times as long.

A grommet is a tension member inside the belt. It is made like a giant cable except that it's endless—a cord loop built by winding cord on itself. It makes a flexible belt but one that stands shocks and heavy loads. No other kind of belt but B. F. Goodrich has grommets; no other belt stands so much punishment or lasts so long.

Product improvement like this goes

on constantly at B. F. Goodrich; no BFG product is too unimportant to get its share. If you use V belts or other industrial rubber goods, don't decide any product you may buy is the best to be had without first seeing your BFG distributor and finding out what B. F. Goodrich research may have done recently to improve it. *The B. F. Goodrich Company, Industrial & General Products Division, Akron Ohio.*

B.F. Goodrich
RUBBER FOR INDUSTRY

WHAT! NO COAT FOR SCOTTY?

NOT TRUE! America's pet shops carry canine wardrobes for every season and occasion . . .

. . . just as America's clothing stores have the last word in fashions for you!

Thank the foresight of U. S. textile industries for investing millions in new processes, new plants and equipment. It's the one reason they can continue to give you new and improved fabrics—and at the same time supply the estimated 500 pounds of textiles needed for every man in our armed services.

To help turn out the 1950 record of over 6 billion pounds of cottons, woolens, silks and synthetics, these industries used Allis-Chalmers *Quick-Clean* motors, *Texrope* V-belt drives, dielectric heaters, electric power generating and control equipment.

Allis-Chalmers today aids all industries that are working to safeguard our nation—keep our standards of living highest in the world.

ALLIS-CHALMERS MANUFACTURING COMPANY
Milwaukee 1, Wisconsin

How Textile Makers Use A-C Equipment to Increase Production . . .



Twist is set in cones of rayon yarn in fraction of former time by using Allis-Chalmers dielectric heater. Sets new standards of uniformity and product quality.

Textile production increased by *Quick-Clean* motors that won't clog with lint—variable speed *Texrope* drives that provide quick, accurate control of machine speed. Typical help by Allis-Chalmers!



Quick-Clean and *Texrope* are Allis-Chalmers trademarks.



Thick wood pulps for making synthetic yarns, plastics, paper products, are pumped with this Allis-Chalmers stock pump. Only 4 moving parts cut maintenance time, parts inventory.

PROSPERITY AND POWER!

America's strength, prosperity and good living have been paced by rapidly expanding generation and utilization of electric power.



ALLIS-CHALMERS



One of the Big 3 in Electric Power Equipment—
Biggest of All in Range of Industrial Products

**EVERY
SHIPMENT
BECOMES** **FAST FREIGHT**



FOR EVERY INDUSTRY, Towmotor Mass Handling provides swift movement of materials . . . the greatest single step to increased productive output and lowered costs. Record-breaking speed in unloading carloads of materials, and fast in-plant movement of heavy loads are commonplace when Towmotor Mass Handling makes "fast freight" of every shipment in thousands of America's leading plants. Twelve Towmotor models, with capacities from 1,500 to 15,000-lbs. simplify and speed-up every type of handling job. Learn the right answer to cost-cutting efficiency in your plant. Send the coupon today for new folders describing the complete Towmotor line and special engineering features. Representatives in all principal cities in U. S. and Canada.

***MH is MASS HANDLING**
systematic movement of the most units in the shortest time at lowest cost.



MH* for FOODS and DRUGS

Tremendous man-hour savings are possible when Towmotor Mass Handling moves 3,000-lb. loads from receiving to storage or processing in less than one minute.



TOWMOTOR
THE ONE-MAN GANG

**FORK LIFT TRUCKS
and TRACTORS**

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

TOWMOTOR CORPORATION, DIV. 2
1226 East 152nd Street, Cleveland 10, Ohio

Please send me the new Towmotor folders, describing the complete Towmotor line and special engineering features.

Name _____

Company _____

Address _____

City _____ Zone _____

State _____

BUSINESS WEEK

EDITOR & PUBLISHER, Elliott V. Bell
MANAGING EDITOR Edgar A. Grunwald
EXECUTIVE EDITOR Kenneth Kramer

ASST. MANAGING EDITOR Robert B. Colborn
ASSOC. MANAGING EDITOR John L. Cobbs

DEPARTMENT EDITORS

Business Outlook, Clark R. Pace • *Finance*, William McKee Gillingham • *Foreign*, Howard Whidden • *Illustration*, James C. Nelson, Jr. • *Labor*, Merlin S. Pitzele • *Law*, Joseph A. Gerard • *Marketing*, Carl Rieser • *Pictorial*, Mary Flaherty • *Regional Reports*, Richard M. Machon • *The Trend*, Gabriel S. Hauge

NEWS EDITORS

Stanley H. Brown, Cora Carter, T. B. Crane, Frank J. Fugatty, John Hartshorne, Guy Shipler, Jr., Doris I. White • *Photography*, Dick Wolters

EDITORIAL ASSISTANTS

J. P. Chamberlain (Asst. Finance Editor), Jean Drummond, Paul Finey, William B. Franklin, Charles M. Garvey (Asst. Industrial Production Editor), Jean E. Heckelman (Asst. Marketing Editor), John Hinman, Melvyn King, Mary Maguire, Kenneth McGowan, Kathie McShane, Paul R. Miller, Jr. (Asst. Foreign Editor), Beatrice Mullin, Arthur Richter, Janet Studholme, Edward T. Townsend (Asst. Labor Editor), Richard L. Waddell • *Statistica*, Gertrude Charlott • *Librarian*, Mildred L. Washburn

ECONOMICS STAFF

Dexter M. Keezer, Peter French, Douglas Greenwald, Robert P. Ulin, Richard Everett

DOMESTIC NEWS SERVICE

Chicago Bureau, James M. Sutherland, Mary B. Strode • *Detroit Bureau*, Dorothy D. Miller, Robert E. Cochran • *Detroit Bureau*, Stanley H. Brans, James Sites • *Los Angeles Bureau*, Thomas M. Sell • *Pittsburgh Bureau*, Richard Lamb • *Washington Bureau*, George B. Bryant, Jr., Glen Bayless, Carter Field, Joseph Gambaus, Louise Jacobson, Sam Justus, John R. Kent, Donald O. Lovins, Nathanial McKittrick, Glenn Montgomery, Arthur L. Moore, Seymour Nagan, Caroline Robertson, Ron Ross, Vincent Smith, W. B. Whitchard, Jr. • *Correspondents*: Akron, Albuquerque, Atlanta, Baltimore, Bangor, Birmingham, Boston, Buffalo, Charlotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Houston, Indianapolis, Kansas City, Knoxville, Louisville, Madison, Memphis, Miami, Minneapolis, New Orleans, Norfolk, Oklahoma City, Omaha, Philadelphia, Pittsburgh, Portland, (Ore.), Providence, Richmond, Rochester, Salt Lake City, San Diego, Seattle, St. Louis, Syracuse, Wichita, Wilmington, Honolulu

FOREIGN NEWS SERVICE

Editor, Russell F. Anderson • *London*, Frederick Brewster • *Paris*, Paul France • *Buenos Aires*, John Christie • *Mexico City*, Juan Wilhelm • *Moscow*, Andrew Steiger • *Tokyo*, Alpheus Jessup • *Melbourne*, Herbert Leopold • *Bombay*, W. Gordon Graham • *Rio de Janeiro*, Joseph Van Denburg, Jr. • *Buenos Aires*, Herbert M. Clark • *Correspondents*: Amsterdam, Bangkok, Batavia, Bogota, Cairo, Caracas, Copenhagen, Geneva, Johannesburg, La Paz, Lima, Manila, Milan, Montevideo, Ottawa, Prague, Santiago, Shanghai

ADVERTISING & BUSINESS MANAGER

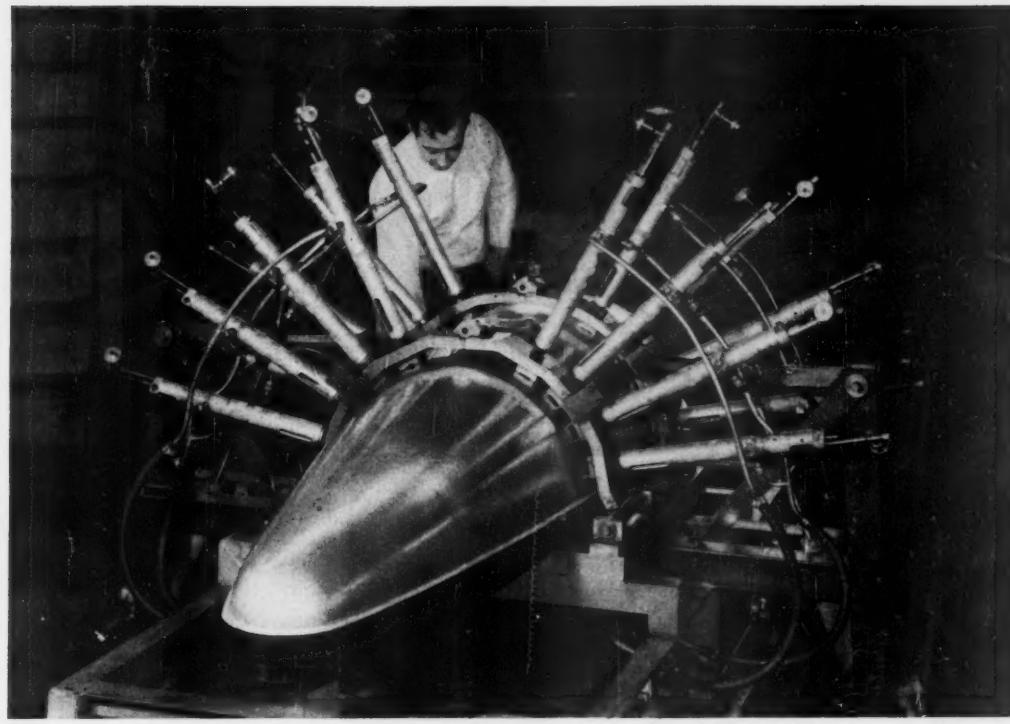
Herman C. Sturm

BUSINESS WEEK • APRIL 21 • NUMBER 1129

(with which are combined *The Annalist* and *The Magazine of Business*) • Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, President; Frank A. Murphy, Vice-President; Office, 99-129 North Broadway, Albany, N. Y. • Editorial, Executive and Advertising Offices, 330 West 42nd St., New York 18; Curtis W. McGraw, President; William C. Chase, Executive Vice-President; Joseph A. Gerard, Vice-President and Treasurer; John J. Cooke, Secretary; Paul Montgomery, Senior Vice-President, Publications Division; Ralph H. Nichols, Vice-President; Nelson Bond, Vice-President and Director of Advertising.

Subscriptions: Address correspondence regarding subscriptions to: E. Blauvelt, Fulfillment Manager, 1226 East 152nd Street, New York 10, N. Y. • Single copy 25c. Subscription rates — United States and possessions \$6.00 a year; \$12.00 for three years. Canada \$7.00 a year; \$14.00 for three years. Pan American countries \$10.00 a year; \$20.00 for three years. Other countries \$20 a year; \$40.00 for three years. • Entered as second class matter Dec. 4, 1936, at the Post Office at Albany, N. Y., under Act of Mar. 3, 1879. • Printed in U. S. A. Copyright 1951 by McGraw-Hill Publishing Co., Inc. • All Rights Reserved.

BUSINESS WEEK • Apr. 21, 1951



TEARDROPS THAT AIRPLANES SHED

AN APPLICATION OF KELLER AIR TOOLS

Teardrop-shaped gas tanks—made of 14-gauge aluminum and designed so they can be jettisoned by aircraft in flight—are built in the plant of North American Industries, Chicago.

Since these tanks are often used just once and then discarded, production costs must be kept at a minimum.

The fixture shown above was designed to speed the drilling of sixteen holes for mounting baffles on the tanks. At the touch of a button, the sixteen Keller Airfeeddrills* mounted on the fixture simultaneously drill the sixteen holes . . . in half the time formerly required when *four* men did the job with hand-held power drills.

Now gasoline tanks are drilled so easily and quickly that they no longer have to be stacked up and rehandled. There is further economy from eliminating the ragged breakthrough of hand drilling, which simplifies deburring.

Keller Airfeeddrills and other air-operated tools—including hoists, screw drivers, nut setters, die grinders, and riveters—are widely used to speed production and reduce costs.

*Keller Tool Company trade mark



Air Tools engineered to industry

KELLER TOOL COMPANY, GRAND HAVEN, MICH.

AIR MOTORS • AIR HOISTS • AIR HAMMERS • COMPRESSION RIVETERS • GRINDERS • DRILLS • SCREW DRIVERS • NUT SETTERS

**Yes,
we said
Dictating
Instrument!**

The world's Smallest! Handiest!

Simplest! at **1/3** the cost!

One to twenty



TELEVOICE Stations



connect to
the EDISON
TELEVOICEWRITER



An Edison first, perfected after more than six years of proof on the firing line! Winning the most sensational acclaim in the history of instrument dictation! Easy to use as a telephone! Complete, remote control by push-buttons! "Delivers" dictation to EDISON TELEVOICEWRITER at secretary's desk. Cuts cost of instrument dictation as much as 66 2/3%!



Edison TeleVoicewriter

The Televoice System

GET THE WHOLE STORY—NOW! Send for this new descriptive booklet. Or, to arrange for a demonstration, call "EDIPHONE" in your city. In Canada: Thomas A. Edison of Canada, Ltd., Toronto 1, Ontario.

Thomas A. Edison
INCORPORATED



EDISON, 23 Lakeside Ave., W. Orange, N. J.

Okay—send me a LINE ON TELEVOICE.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Highlights In This Issue

MacArthur Ouster

- How it shifts political alignments in this country. P. 17
- What is our Asiatic policy now, anyway? P. 21
- And on the fundamental issue—relations with Russia—how do we stack up? P. 151
- As for Japan, what's the situation there with MacArthur gone? P. 153

Statistics Can Lie

- But if you go behind the Pentagon statistics to the plants producing munitions, you find that this time they're not lying. Stuff is really beginning to roll. P. 25

High-Speed Deathtraps

- That's what the fancy turnpikes are beginning to look like to some people in the trucking industry. P. 108

The Word on CMP

- What the new control system will mean to military—and civilian—producers. The thinking behind it. A recorded interview with Manly Fleischmann. P. 136

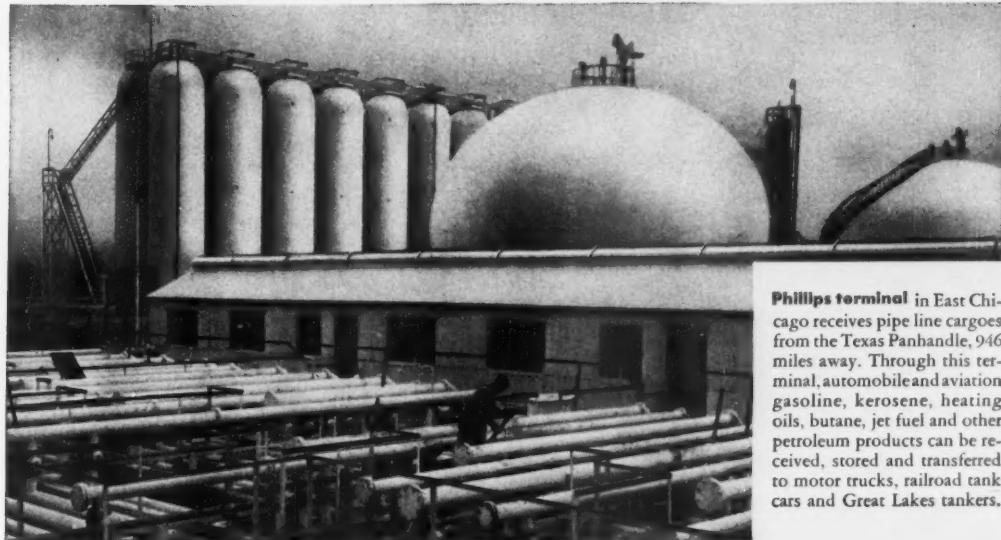
Money: Don't Count On It

- Financing is no longer the smallest part of your problem when you want a new plant. P. 124

THE DEPARTMENTS

Business Abroad	153
Business Outlook	9
Defense Business	134
Figures of the Week	15,70
Finance	124
International Outlook	151
Labor	33
Manpower	118
Marketing	83
The Markets	132
New Products	64
Production	50
Readers Report	116
Regions	94
Taxes	44
Transportation	108
The Trend	160
Washington Outlook	17

"Switchyard" for Pipe Line Cargoes



Phillips terminal in East Chicago receives pipe line cargoes from the Texas Panhandle, 946 miles away. Through this terminal, automobile and aviation gasoline, kerosene, heating oils, butane, jet fuel and other petroleum products can be received, stored and transferred to motor trucks, railroad tank cars and Great Lakes tankers.

DELIVERING THE GOODS is an important phase of the oil business. Crude oil must be transported to refineries. Finished products must get to market. In all this transportation, pipe lines play a vital role.

Phillips Pipe Line Company, a subsidiary of Phillips Petroleum Company, operates a far-flung network of pipe lines and pumping stations to bring crude oil to refineries. Then Phillips Products Pipe Line takes over the cross country delivery of petroleum products to population centers

throughout Mid-America. Supplemented by barges, tankers, trucks and railroads, pipe lines operated by Phillips and others serve the common good at minimum cost.

Few realize the great contribution pipe lines make to America's industrial strength and endurance today. Yet these great, unseen arteries of steel stretch out across prairie, hill and desert to bring millions of barrels of petroleum—the lifeblood of our civilization—from where it is to where it is needed and used.



10,000 barrels of petroleum products move daily into the Rocky Mountain market through this meter. It is situated at a pumping station along the pipe line between Phillips refining facilities at Borger, Texas, and the end of the line at Denver, Colo.



PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma

We put the Power of Petroleum at America's Service



LOST:

*110,000,000 Man Hours
Annually due to
Industrial Eye Accidents*

YOU CAN PREVENT THIS TRAGIC WASTE IN YOUR
PLANT WITH GOGGLES COSTING \$2.30

Eye accidents cost industry per year about 110,000,000 man hours or about \$160,000,000 apart from compensation, medical, idle machine charges and other costs. Yet the safety goggles that prevent 98% of eye accidents average \$2.30 in cost or only 78 cents more than the loss of just one man hour of productive time. (Current average hourly earnings of factory workers \$1.52.)

In these days of capacity production and short supply of skilled workers, an AO Eye Protection Program deserves

your serious consideration — *more than ever*. Particularly when it can pay for itself within six months time in the production it protects and the costs it can save. Ask your nearest AO Safety Representative to show you how.

FACTS TO REMEMBER:

Industrial eye injuries cost over \$5 per employed worker per year — with compensation averaging \$328 per injured man even in the low-cost year of 1938.

American Optical
COMPANY
SAFETY PRODUCTS DIVISION



SOUTHBRIIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES

BUSINESS OUTLOOK

BUSINESS WEEK
APRIL 21, 1951



Money is really tight for the first time in 18 years. Businessmen will find it harder to get as 1951 wears on—and the rental on it will be higher.

Most changes in credit conditions have delayed-action fuses. A step to tighten money is taken; later the effects pop up when least expected. But not so the Federal Reserve's pulling of the peg on Treasury bond prices.

This step tightened money and raised its cost in a big hurry (page 124).

Money hasn't been so easy as you might think for some time. The illusion was due to the low interest rates that resulted from the Federal Reserve's support of government bonds at pegged prices.

Institutional investors have had unlimited loanable funds only because their war-swelled government bond holdings were the equivalent of cash.

For the last nine months, particularly, they have been selling these bonds, thus making money available to private borrowers on a vast scale. But for that, the money shortage would have been apparent much earlier.

When lenders have to dump one investment to make another, they clearly are on short tether. And now that has been shortened still more.

The Fed no longer stands there ready to take all offerings. If it buys, it has no fixed price. The seller, for once, risks a loss.

Corporations may have to go more to the public than to institutional lenders for money (if not right away, in the easily visible future).

"Private placements"—direct sales of corporate securities to the insurance companies—will be particularly affected.

The life underwriters have big forward commitments to borrowers. These will take up most insurance income from premiums and investments over the next several months.

And they no longer are selling government bonds; to do so risks taking a price below par, which means taking a loss.

Industry's vast plans for new plant and equipment are bound to keep capital needs high—both the fixed and the working types.

Plowed-back earnings will be the main supply line. But in many cases that will tend to deplete cash, especially with the cost of carrying inventory already sky high.

This will keep demand for bank loans up. But, if bank credit is tight, the public will be the main recourse.

Business has two barriers to hurdle if it is to complete expansion on schedule: money and materials. Either—or both—can clamp on a brake. And perhaps this will be desirable when prices start boiling up again.

That rip-roaring housing boom is beginning to fade (page 24).

Dwelling units started in March totaled 93,000. That's still a good month; prior to last year's record smashers, it would have been a whopper. And it looks all right alongside February's 80,000.

But this 93,000 falls 24,000 short of matching a year ago—when the housing boom was starting to roll.

Comparing each month of the first quarter with the year before, you really begin to see the trend: January had been 11% ahead; February skidded to a minus 4%; and March took a topple of 21%.

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

APRIL 21, 1951

Curbs on mortgage lending (the Federal Reserve's Regulation X) won't be seriously tested for another month or two.

There still are a number of housing applications floating around that were approved before the higher down payments went into effect. When these are gone, builders will be facing a much tougher market.

Moreover, mortgage money will be harder to find. Savings banks and insurance companies are committed a good way ahead on available funds.

Here's a fact that bodes no good for price stabilization efforts in the coming months:

During the first quarter of 1951, cash receipts of the government were \$6.8-billion more than cash outlays—the largest quarterly cash inflow ever.

That was a powerful damper on prices during the quarter. But it's liable to be the last cash surplus for quite some time.

From now on, rising military production will sop up government funds.

And, unless Congress votes some more revenue raisers, you can expect quarterly deficits as a regular diet.

How good retail Easter sales were this year depends on how you read the statistics.

If you take the four weeks preceding the holiday (washing out the difference in dates between 1950 and 1951), department store sales were up 2%.

The two weeks after Easter ran 11% below a year ago. But that comparison is with the two pre-Easter weeks in 1950; again you have to slip the calendar a couple of weeks for comparability—and 1951 is 3% ahead.

Thus the six weeks—four before and two after Easter—leave 1951 ahead. That's not so good as most had hoped (not enough to match the change in prices) but not ruinous, either.

Layoff of TV workers has little to do with "conversion unemployment." The tipoff is the growing number of sets in dealers' hands and the drop in sales.

At the beginning of March, department store stocks of radios, phonographs, and TV sets were 222% higher than the same month the year before. Sales were only 9% higher.

Since then things have been even worse. Ross D. Siragusa, president of Admiral, says there has been a definite slump in sales lately. And the shower of promotional sales shows that inventories have not eased.

The excess profits tax has, so far, dealt lightly with most businesses.

The Council of Economic Advisers estimates first-quarter profits at an annual rate of \$26.7-billion—up about \$1-billion since the last three months of 1950.

But it's all one-shot inventory profits. Adjust inventories for price rises and profits are running the same as at yearend.

You think the roads are crowded? Well, they are.

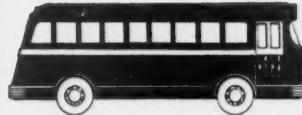
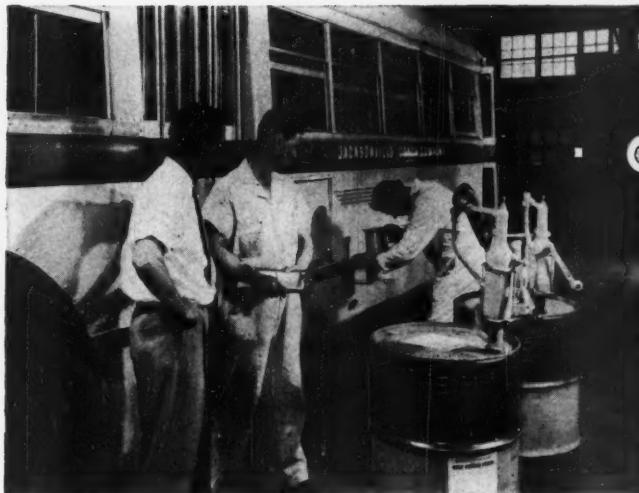
Total motor vehicle registrations in this country in 1935 were just under 35-million. At the end of 1950, they had soared to 48½-million.

Any day now, the total is going to cross the 50-million mark.

Gulf Motor Flush

extends overhaul periods, cuts costs

for truck and bus operators



• Another dollar-saving development of Gulf Research Laboratories

Think of it! A safe solvent so powerful that it actually removes sludge, lacquer, and varnish from the internal surfaces of automotive engines—without dismantling the engine.

That's Gulf Motor Flush—a unique flushing agent which, when placed in the crankcase, cleans oil rings, compression rings, valve stems, oil lines, oil screens, and pans.

Here's what Gulf Motor Flush is doing for fleet operators. Used at proper intervals—just prior to the time oil rings clog and compression rings stick—Gulf Motor Flush extends the time between engine overhauls by as much as 15,000 to 40,000 miles depending on the type of service. In stop-and-go service it produces particularly outstand-

ing results, reducing engine overhauls up to one-half. Then too, because it keeps oil control rings free, Gulf Motor Flush greatly reduces oil consumption.

Gulf Motor Flush is primarily designed for use by operators of truck and bus fleets, but it is effective for any gasoline or Diesel engine, where its use can be supervised by skilled mechanics.

Arrange now for a demonstration on your equipment. See for yourself how the remarkable cleansing and washing action of Gulf Motor Flush—the revolutionary preventive maintenance tool for automotive engines—can help you reduce maintenance costs. Write, wire, or phone your nearest Gulf office.



Gulf Oil Corporation - Gulf Refining Company
3-SZ Gulf Building, Pittsburgh 30, Pa.

Please send me, without obligation, a copy of your new brochure "Gulf Motor Flush."

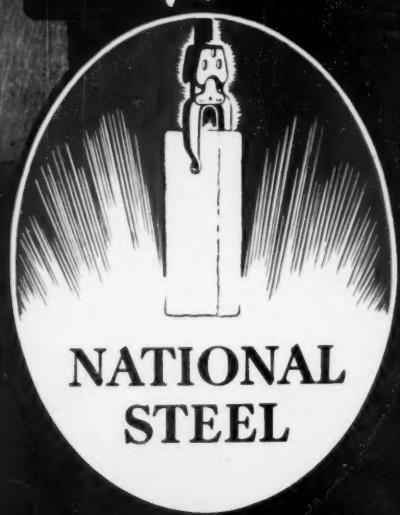
Name.....

Company.....

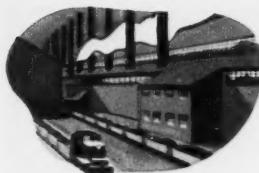
Title.....

Address.....

This is

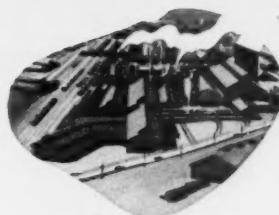


**NATIONAL
STEEL**



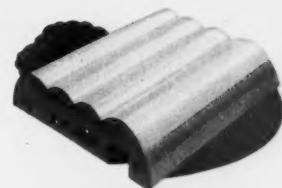
GREAT LAKES STEEL CORP.

Detroit, Michigan. The only integrated steel mill in the Detroit area. Produces a wide range of carbon steel products . . . is a major supplier of all types of steel for the automotive industry.



WEIRTON STEEL COMPANY

Mills at Weirton, West Virginia, and Steubenville, Ohio. World's largest independent manufacturer of tin plate. Producer of a wide range of other important steel products.



STRAN-STEEL DIVISION

Unit of Great Lakes Steel Corporation. Plants at Ecorse, Michigan, and Terre Haute, Indiana. Exclusive manufacturer of world-famed Quonset buildings and Stran-Steel nailable framing.



THE HANNA FURNACE CORP.

Buffalo, New York. Blast furnace division. A leading producer of various grades of merchant pig iron for foundry use.



NATIONAL MINES CORP.

Coal mines and properties in Kentucky, West Virginia and Pennsylvania. Supplies high grade metallurgical coal for the tremendous needs of National Steel.



HANNA IRON ORE COMPANY

Cleveland, Ohio. Produces ore from extensive holdings in Great Lakes region. National Steel is also participating in the development of new Labrador-Quebec iron ore fields.

National Steel

National Steel is a progressive steel producer.

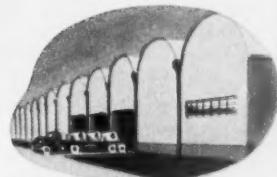
It is progressive in growth and in vision . . . in the development of new methods and the pioneering of new processes. Its record of accomplishment is the record of an important part of the modernization of the steel industry.

A National Steel division installed America's first fully continuous 4-high hot strip mill. It pioneered the electrolytic process of coating steel with protective metals.

Today National Steel operates the largest and fastest electrolytic plating lines in the world . . . is the largest independent producer of tin plate.

In one year, National Steel put into operation the world's three largest open hearth furnaces. It is now operating a huge 400-ton-per-day oxygen plant—another forward step in steel-producing efficiency.

This is National Steel . . . constantly improving, constantly expanding . . . one of America's largest and most progressive makers of steel.



NATIONAL STEEL PRODUCTS CO.

Located in Houston, Texas. Recently erected warehouse covers 208,425 square feet. Provides facilities for distribution of steel products throughout Southwest.

NATIONAL STEEL
GRANT BUILDING



CORPORATION
PITTSBURGH, PA.

*Serving America
by Serving
American Industry*



Bad News for Bugs

BUGS are in for the surprise of their lives. They're going to zoom into allethrin, the new insecticide ingredient. It looks like especially bad news for many of the insects that pester you most.

Take flies, mosquitoes and gnats . . . allethrin's paralyzing touch searches them out . . . delivers the blow that knocks them down fast . . . leaving its slower acting companion ingredients in the spray or powder to complete the kill.

Until now this type of insecticide came from flowers picked by the natives in Asia and Africa. But allethrin is an all-American product, synthesized under scientific controls and has the definite advantages over importations of uniformity in strength and quality.

It is only natural that the people of Union Carbide pioneered in the production of allethrin on a commercial scale. For they were already making most of the needed chemical ingredients.

As a result, the people of Union Carbide are already providing allethrin in ever-increasing quantities to manufacturers of household and dairy sprays. And researchers all over the country are now engaged in testing its value for the control of agricultural pests and for other purposes. Other Union Carbide chemicals are important ingredients in many other insecticides and fungicides. One or more of them may have a place in your future plans.

FREE! Learn more about the interesting things you use every day. Write for the illustrated booklet "Products and Processes" which tells how science and industry use Union Carbide's Alloys, Chemicals, Carbons, Gases, and Plastics in creating things for you. Write for free booklet C.

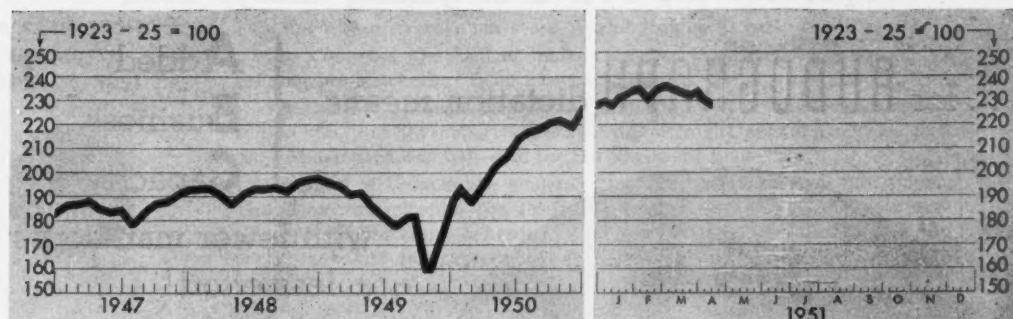


UNION CARBIDE
AND CARBON CORPORATION
30 EAST 42ND STREET  NEW YORK 17, N. Y.

— Trade-marked Products of Alloys, Carbons, Chemicals, Gases, and Plastics include —

SYNTHETIC ORGANIC CHEMICALS • LINDE Oxygen • BAKELITE, KRENE, and VINYLITE Plastics
PREST-O-LITE Acetylene • PYROFAX Gas • NATIONAL Carbons • EVEREADY Flashlights and Batteries
ACHESON Electrodes • PRESTONE and TREK Anti-Freezes • ELECTROMET Alloys and Metals • HAYNES STELLITE Alloys

FIGURES OF THE WEEK



Business Week Index (above)

PRODUCTION

	5 Latest Week	Preceding Week	Month Ago	Year Ago	1947 Average
Steel ingot production (thousands of tons)	2,057	2,045	2,021	1,906	1,593
Production of automobiles and trucks	163,876	+158,076	182,781	147,240	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$49,318	\$46,774	\$43,112	\$36,450	\$19,433
Electric power output (million kilowatt-hours)	6,747	6,736	6,903	5,863	3,130
Crude oil and condensate (daily average, 1,000 bbls.)	6,120	6,127	6,043	4,999	3,842
Bituminous coal (daily average, 1,000 tons)	1,752	+1,698	1,670	1,954	1,685

TRADE

→ Miscellaneous and l.c.l. carloadings	79	81	80	72	86
All other carloadings (daily average, 1,000 cars)	44	45	45	45	52
Money in circulation (millions)	\$27,166	\$27,138	\$27,167	\$27,072	\$9,613
Department store sales (change from same week of preceding year)	-9%	-14%	+20%	None	+17%
Business failures (Dun & Bradstreet, number)	172	195	185	201	228

PRICES (Average for the week)

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	516.3	520.6	523.5	359.9	198.1
Industrial raw materials, daily index (U. S. BLS, Aug., 1939 = 100)	363.7	365.1	369.4	218.8	138.5
Domestic farm products, daily index (U. S. BLS, Aug., 1939 = 100)	407.4	406.2	411.1	305.5	146.6
Finished steel composite (Iron Age, lb.)	4.131¢	4.131¢	4.131¢	3.837¢	2.396¢
Scrap steel composite (Iron Age, ton.)	\$43.00	\$43.00	\$43.00	\$28.92	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	24.500¢	24.500¢	24.500¢	18.860¢	12.022¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$2.43	\$2.43	\$2.40	\$2.31	\$0.99
Sugar, daily price (raw, delivered New York, lb.)	5.73¢	5.72¢	5.87¢	5.50¢	3.38¢
Cotton, daily price (middling, ten designated markets, lb.)	45.14¢	45.14¢	45.14¢	32.43¢	13.94¢
Wool tops (Boston, lb.)	#	\$4.70	\$4.70	\$2.12	\$1.41
Rubber, daily price (ribbed smoked sheets, New York, lb.)	66.00¢	66.00¢	70.00¢	23.29¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	175.2	172.1	171.2	142.7	78.0
Medium grade corporate bond yield (Baa issues, Moody's)	3.33%	3.31%	3.25%	3.21%	4.33%
High grade corporate bond yield (Aaa issues, Moody's)	2.87%	2.87%	2.80%	2.59%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	2%	2%	2%	1½-1¾%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	2-2½%	2-2½%	2-2½%	1½-1¾%	½-¾%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	49,205	49,042	51,826	46,492	††27,777
Total loans and investments, reporting member banks	69,707	70,122	69,538	66,608	††32,309
Commercial and agricultural loans, reporting member banks	19,273	19,206	18,956	13,716	††6,963
Securities loans, reporting member banks	1,960	2,227	2,072	2,287	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	30,713	30,674	30,782	35,941	††15,999
Other securities held, reporting member banks	6,617	6,599	6,583	5,630	††4,303
Excess reserves, all member banks	1,033	549	1,010	748	5,290
Total federal reserve credit, outstanding	23,895	23,813	23,652	18,068	2,265

→ See page 70.

*Preliminary, week ended Apr. 14.
†Estimate (BW—Jul. 12 '47, p16).

‡Not available.

§Date for "Latest Week" on each series on request.

†Revised.

Before the personnel shortage moves in on you
... provide the **A B C** of getting things done

... for **AUDOGRAPH** dictation means

{ **Added
Business
Capacity**

with fewer man-hours
... less effort!

- Personnel losses, due to the national emergency, need not reduce the output of your office force... no matter how large or small. With the installation of AUDOGRAPH equipment, prominent users have reported that volume office output has been maintained despite personnel losses up to 30%.

Before the man-power shortage threatens *your* ability to keep up with the *pressure to produce*, send in the coupon and discover how to thwart the man-power problem in your own office.

AUDOGRAPH is made by The Gray Manufacturing Company—established 1891—originators of the Telephone Pay Station.



Dictating and transcribing
are E-A-S-I-E-R



with AUDOGRAPH

- *WE REGRET* the unavoidable delay in delivery of new AUDOGRAPHs, but demands have exceeded all precedent. At the same time a large part of our raw material has been earmarked for defense production, to which many of our skilled personnel are already committed. If you are awaiting delivery of new AUDOGRAPH equipment, we urge patience... for AUDOGRAPH is very well worth waiting for.

Gray
AUDOGRAPH

ELECTRONIC
SOUNDWRITER

AUDOGRAPH sales and service in 180 principal cities of the U.S. See your Classified Telephone Directory under "Dictating Machines." Canada: Northern Electric Company, Ltd., sole authorized agents for the Dominion. Overseas: Westrex Corporation (export affiliate of Western Electric Company) in 35 foreign countries.

● THE GRAY MANUFACTURING COMPANY, HARTFORD 1, CONNECTICUT

● Send me Booklet 4-Y—"Now We Really Get Things Done!"

● Name.....

● Title..... Firm.....

● Street..... City.....



WASHINGTON OUTLOOK

WASHINGTON
BUREAU
APR. 21, 1951



MacArthur's return has stood Washington on its ear.

In Congress, the load of mail is greater than ever before—and it's running pro-MacArthur from 8-to-1 to 100-to-1.

In the White House, Truman can take comfort that the Democrats are behind him. But his support will evaporate overnight, should his "calculated risk" of a limited war fail—and the Soviets decide to move.

Support of Truman was evident at last Saturday's Jackson Day dinner. The Democrats cheered the President generously. But the biggest ovation went to Secretary Acheson. Observers take that as an omen that the party rank and file supports Truman's foreign policy, as well as "The Chief" personally.

The Republicans have their problems, too. Most of them are behind the five-star general. But the warning in the GOP camp is this: Let's not commit ourselves unalterably. When MacArthur gets down to the details of his meet-communism-in-Asia-now policy, we may not want to go along.

MacArthur is his own spokesman. He hasn't been in the U.S. since 1937—and the Republicans aren't sure he has a real idea of domestic politics. That's the reason cool heads among the Republicans want to wait.

There's this feeling, too. Among Republican strategists: If we have to choose between Generals Eisenhower and MacArthur, MacArthur is the wrong general, politically.

The Democrats will succeed in keeping control of the "investigation" of the conflict between Truman and MacArthur. Whatever probing takes place will be done by the established military and foreign relations committees—not by a blue-ribbon Senate-House group in which MacArthur partisans, like Ferguson of Michigan, can grab the spotlight.

Russia has the keys, politically as well as militarily. If Stalin holds back, then Truman's chances of being right are good, obviously. But continuing casualty reports from Korea in June or October of 1952 might defeat Truman, or any other Democratic candidate. That's the view of the politicians, both Republican and Democratic.

A note of caution: Count the convention votes before deciding that MacArthur, or a MacArthur man like Taft, is a shoo-in for the GOP nomination. Gov. Dewey in New York, Sen. Duff in Pennsylvania, Gov. Warren in California, and Gov. Driscoll of New Jersey—if they stand together—can stop anybody.

•

How much civilian production will there be from here on? This is the big question that makes the mobilizers so fuzzy about the Controlled Materials Plan.

The military take is fixed, pretty firmly.

But the civilian share is another problem, and it's full of politics. Truman is, finally, going to have to decide how many cars, TV sets, etc., may be made. Only then can CMP officials fit such programs as plant expansion into their plan.

Excises won't be raised much in the new tax bill. You can figure that any hikes in this category will bring only about \$1-billion or so.

Reason: Congress is feeling pressure from various groups. And since all sides say Truman's \$16-billion tax request can be cut to \$10-billion or less, the pressure is showing its effects.

WASHINGTON OUTLOOK

(Continued)

**WASHINGTON
BUREAU
APR. 21, 1951**

Take tobacco: Tax boss Doughton, from North Carolina, is blocking any rise. Whiskey, gasoline, appliances, furs, jewelry will get only small increases, if any. And the new levy on autos will be only a part of the 13 additional percentage points Truman wants.

The antiknock rating of civilian gasoline is going to drop. The government ration of tetraethyl lead to refiners the rest of this year will be down by about one-half.

There won't be any edict governing octane ratings. But refiners will have to spread the antiknock ingredient thinner if they want to hit their goal of a 12% increase in passenger car gas.

A substitute for lead in high-test gasoline is in prospect. By next year, maybe octane ratings can be raised again.

Small business will soon be getting a larger share of military orders—without new legislation. As things stand now, about 85% of the dollar value of contracts is negotiated; but only about 14% of this goes to small outfits. In short, Secretary Marshall's "broaden-the-base" policy hasn't meant much so far.

Here are more changes:

Allowing prime contractors more profit on the work they subcontract. Now they're penalized for subcontracting.

Buying from other than the lowest bidders. This already is the rule, but it will be stepped up.

Ignoring freight charges in comparing prices. This gives a better break to firms with a geographical disadvantage.

Issuing a special "broaden-the-base" list of commercial or near-commercial items—something for all suppliers to take a look at.

Putting a small-business specialist in every procurement office.

The furor over fast amortization will die down. Sen. Maybank, chief mobilization watchdog, threatened to blast mobilization officials for freely passing out these tax benefits. Now he's dropping the idea. From now on, expansion needed for military items will get a high percentage of accelerated amortization. Percentages allowed for basic raw material expansion will keep dropping.

Watch Symington as top boss of the Reconstruction Finance Corp. He's determined to convert the big government money-and-management outfit into a political asset for Truman and the Fair Deal—despite the recent Fulbright disclosures.

Industrial expansion and help for small business will be pushed hard. As a one-man board of directors—a new version of Jesse Jones—Symington will swing a lot of weight again on mobilization matters.

Harrison's successor as Defense Production Administrator is being picked by Wilson. Harrison rates high, but illness is a handicap. Wilson will name another businessman for this key position—not a bureaucrat.

Going Great Guns—

TO MAKE AMERICA STRONG!



It looks like a new secret weapon—and it's every bit as vital to American defense! Actually, it's a high-speed coal drill—just one of many hard-hitting, modern machines that make it possible for the American coal miner to outproduce any other miner in the world—3 to 1!

This year—in addition to peacetime demands—millions of tons of coal are urgently needed to power the making of ships and tanks and planes. Will there be enough coal for every need? Here's why America's privately managed coal companies can—and do—say YES!

Today, 97% of all coal is mechanically cut and 70% is mechanically loaded. The modern American miner is a skilled machine operator whose output has risen more than 20% since 1939. *This efficiency gain is one of the largest made by any American industry.*

At the modern mine, great preparation plants turn out far better coal. When this better coal is used under

the more efficient present-day boilers, it generates *three times* as much energy per ton. *Today, the coal sent to the nation's defense plants works harder for defense!*

New mines—1,000 of them in the last five years—are replacing “mined out” or unproductive properties. *These new mines alone can produce more coal than all the coal mines of Communist Russia!*

Progressive private management, spurred by the powerful stimulus of free competition, has brought America's coal industry to a higher per-ton output than ever before. America will have all the coal it needs to become strong—and stay strong!

BITUMINOUS COAL INSTITUTE

A DEPARTMENT OF NATIONAL COAL ASSOCIATION

WASHINGTON, D. C.

FOR NATIONAL DEFENSE FOR PEACETIME PROGRESS

YOU CAN COUNT ON COAL!

production Up unit costs down

JUST ONE INSTANCE: A large midwestern plant* reduced hydraulic oil consumption 74% after changing to Texaco Regal Oil (R&O) . . . and after analysis of plant operations by skilled Texaco Lubrication Engineers. *Name on request

THE TOUGH JOBS GO TO TEXACO! That's why, for example, more Diesel electric

locomotives in the U. S. are lubricated with Texaco than with any other brand.

ONE PURCHASE AGREEMENT sets up this increased output program — for all your plants, wherever located. Call the nearest Texaco Distributing Plant or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.



THE TOUGH JOBS GO TO TEXACO

TEXACO
INDUSTRIAL LUBRICANTS





Truman's Plan for Asian Fighting

MacArthur's return crystallizes the conflict over the "limited war" policy. But GOP is unlikely to win major change.

This week, after 14 years in the Pacific, Gen. MacArthur came home. In fact, two MacArthurs returned—

- A war hero who got the No. 1 Yankee Doodle reception from the people in San Francisco, Washington, and New York;

- A principal contestant in a Greater Debate that is a sensational, blown-up extension of the dispute over troops to Europe. The debate: Shall we risk general war by challenging Soviet Russia now—in Asia, not in Europe?

The dust will not settle overnight. President Truman touched off too many emotions when he fired MacArthur. It took a weekend of sober thinking for the Republicans to give up their cry of "Impeach Truman." It will take longer for the public to release the cheers and applause that they've been saving for Gen. MacArthur for almost six years.

But lines are being drawn. They'll take firmer shape as MacArthur faces congressional questioners and puts detail into why he thinks his showdown-now-in-China is a safer way to real peace than Truman's policy.

To date, most Republicans are hitched to the general's five stars. There is the motive of politics—the MacArthur firing comes at a time when Truman stands weakest in the eyes of the public. Many Republicans see this as a time to capitalize on the frustration existing among millions of people who are asking just what is Korea all about, anyway.

I. Above All Is Policy

But there is the bigger motive of policy. Republicans like Senators Taft and Wherry think that MacArthur's position supports their demand for planes instead of mass armies to defend

the country. The kind of war the Administration wants to fight, of course, makes it impossible for the strategic air arm to demonstrate its value.

For much the same reason, the MacArthur viewpoint gets some Air Force support—though Gen. Bradley's proto-Truman speech reflects the main Pentagon view. Many of the flyers would rather like a chance to bring the Russian air force into Korea by bombing Manchuria; they are confident they could chase the Russians out of the air and think such a demonstration would have a salutary effect on Politburo planning.

Truman is getting strong support from his own party men. Democrats are behind the limited war and believe Truman had to reassert civilian authority. Many Democrats who see things too readily in political cliches are crediting Truman with pinning the "war party" label on the GOP.

But Truman, in his own words, is offering the public—and the voters—a limited war, a kind of permanent war that could last beyond November,

ADMINISTRATION POLICY:

1. Localize the war in Korea.
2. Hold the Atlantic Alliance together.
3. Break down the Red Chinese will-to-fight in Korea.
4. Undermine the pro-Moscow wing of the Peiping government.



TRUMAN: "In spite of our best efforts, the Communists may spread the war. But it would be wrong—tragically wrong—for us to extend the war."

1952, could last, indeed, for a decade. Put aside the sound and fury, and what emerges is this:

Both the Truman and MacArthur policies can be defended. But Truman can't insure that limited war ever will bring success; MacArthur can't guarantee that bombing Manchuria won't inevitably bring Soviet Russia into the shooting.

II. What Are the Arguments?

The pro:

The State Dept. regards Korea as a violent example of the East-West conflicts going on in Berlin, Yugoslavia, Iran, Indo-China, Malaya—anywhere that Soviet and Western strategic and political interests clash. Korea diplomatically is the cold war, blown hot on one perimeter.

Thus the time is not ripe for the U.S. to risk a general war. We are just not strong enough. Moreover, the rest of the world is so weak that any U.S. action that outwardly challenges Russia to fight would find most of our allies surrendering without a shot. That would leave precious little room to fight.

So U.S. policy—both in Europe and Asia—is a series of holding operations: Meet aggression wherever it breaks out, but don't carry the fight to the enemy until you have mobilized enough power to win.

Translate that into Korean terms, and you have "limited" war. We are in Korea to stay—even if it means World War III. But the decision to spread the war now is strictly up to Moscow.

A vital part of this policy is to rally allies around you wherever you can. A lot of the steam behind Gen. MacArthur's ouster came from abroad. Eng-

land and France simply would not stand for the policies MacArthur stood for. They were playing from weakness, it is true. But their job in the defense of the West is important. Given strength, our allies will back us up in the end. But vital time is needed to build strength.

The con:

MacArthur believes the Communists in Korea already have cast the die. Here is the start of the all-out struggle for world conquest. In his letter to House Republican leader Joe Martin, the general said, "Here we fight Europe's war with arms while the diplomats there still fight with words. If we lose the war to communism in Asia, the fall of Europe is inevitable. Win it, and Europe most probably will avoid war and yet preserve peace."

Given a free hand in Asia—and a lot more troops—MacArthur would extend the air war to Manchuria and unleash Chiang Kai-shek's troops onto the mainland. He would, if necessary, go it alone without strong support from our European allies. He is willing to do these things for one reason: He doesn't believe that the Russians will stand up to the massed military might of the U.S. in Asia.

III. Bombing Is Too Risky

Truman and the Joint Chiefs of Staff, on the other hand, just don't think they can count on Russia's staying out of a Chinese war. Truman, in his Jackson-Jefferson Day speech, recalled that it was MacArthur himself who estimated that Red China would not enter the fighting if we crossed into North Korean territory.

MacArthur was allowed to proceed on

OPPOSITION POLICY:

There is no single opposition policy. Some proposals:

1. Bomb Manchurian bases.
2. Unleash Chiang to open a second front.
3. Make our allies take more of the load in Korea.
4. Fight the war in Asia. It has already started there.



that intelligence, and the result was a serious defeat.

Bombing Manchuria now is too much of a risk. It certainly would draw enough retaliation to endanger U.N. ground forces. At worst, Russia would counter with planes, submarines—and attack our own "privileged sanctuary" in Japan. (In the last month, the Soviets have three times indirectly communicated to the State Dept. that they would counter with "strong forces" if U.N. planes extended their operations into China.)

IV. Where Do We Go Now?

When the West gets strong enough—in the next year or so—the decision may be to take the risk MacArthur advocates taking now. For the moment, the nearest the Administration will come is in plans now under way to organize guerrilla forces within China.

But events may well come to a head sooner than expected. The Communist offensive now building up in Korea may force another costly retreat. If that retreat seems to be heading for a Dunkirk, or if China puts in hundreds of Soviet planes over Korea, Gen. Ridgway will have no restrictions on retaliation.

Then, it would be up to Soviet Russia whether World War III had started.

V. What About a Truce?

Washington has no hint that Peiping wants to negotiate now. This week's "peace offer" by the North Koreans, on the face of it, was just another propaganda gesture.

But if the new offensive is stopped,



MACARTHUR: "Here in Asia is where the Communist conspirators have elected to make their play for global conquest."



TAFT of Ohio: "Preventing World War III cannot now be accomplished without an aggressive war against Red China."



JUDD of Minnesota: "It is too late for us to strike first. . . . The only question is how and where and when we shall strike back."

and thrown back, the Reds may be in the mood to talk. Already, the Chinese and Red Koreans have committed 1.5-million troops in Korea. Included is the crack Chinese 4th Army, instrument of the pro-Moscow clique in Peiping. These forces have been badly chewed up.

Elements of three more Chinese armies—and troops from the border area of Northwest China and Russia—are now being moved up. But the strain on Chinese manpower and equipment has been heavy. Moreover, the Manchurian harvest this year will be 20% below normal because farmers have been put into uniform. Last winter Mao had to go to Moscow to plead for more help, and he probably got less than he asked for.

Another Chinese defeat would almost demand that either Russia come in or the Reds talk terms.

VI. U.S. Sticks to U.N. Terms

The U.N. has set our terms for a settlement: (1) a cease fire; (2) withdrawal of foreign troops; (3) a unified Korean government; and (4) discussion of Formosa and Chinese representation in the U.N. The Reds would take points 1, 2, and 3, but only after we gave Formosa to China and took Mao's government into the U.N. Security Council.

The U.S. is going along with the U.N. offer, largely because we don't see any chance that anything will come of it for a long time. U.S. diplomats just haven't decided what to do about Formosa, and the State Dept. quakes at the thought of having Red China in the U.N. But the U.S. would probably have to go along with admitting

Red China to the U.N. We would not favor the move or propose it. But we would not veto it.

VII. No Change in Policy

The initial furor over MacArthur's ouster should begin to die down soon. A reversal in Korea could keep it going for a while. But even then there is little indication that Congress can or will change Truman's policy.

The delays and bitterness generated

by the general's ouster may make congressional debate over foreign aid legislation more prolonged than ever. A gigantic \$10-billion foreign aid bill is slated to go up to Capitol Hill sometime after May 1. The big emphasis will be on arms and economic aid to Europe. That hits right at the core of the dispute between the Administration and MacArthur. But it doesn't add up that Congress will vote to disarm Europe just because MacArthur didn't get his way in Asia.

Inactive Reserves Can Relax

Inactive reserve enlisted men won't be called against their will. For officers, main test is whether they have special skills.

Inactive reservists can breathe a little easier. The services announced last week that, barring a sudden turn of events, no inactive reserve enlisted men would be called against their will. The Navy went along with the Army and the Air Force up to a point.

• **Dividing Line**—For the Army, the dividing point seems to be this: If you are an enlisted man or officer in the active reserve and you receive pay for your reserve activities, you will probably be called before yearend. Beyond this, you'll be recalled only if you're an inactive reserve officer with a critical skill.

Critical skills are: communications experts, cryptanalysts, cryptographers, IBM specialists, intelligence, aerology, photo interpreters, aviation maintenance, ordnance specialists, other specialists requiring long training.

• **Breakdown**—The demands for each service break down into general groupings:

Army—Wants captains and lieutenants with infantry and combat arms experience. Top ages for combat arms second lieutenants is 30; first lieutenants, 35; captains, 41.

Air Force—Still wants plenty of officers (lieutenant colonel and below). Plans to have all organized reservists and all Air National Guard on active duty by end of July.

Navy—Wants very few captains; none over 50 and probably none against their will. Will take a few commanders under 45 if they are specialists. Wants lieutenant commanders under 40, probably won't call any over 35 against their will. Preferred age for lieutenants is 38; will take none over 32 against their will. Navy probably isn't going to take junior-grade lieutenants over 28 against their will.

Marine Corps—Follows general policy and age groupings of the Navy fairly closely.

Brakes on Housing Take Hold

Regulation X begins to bite as housing starts drop nearly 40% below last year. Industry worries that credit is too tight, won't permit even 800,000 starts allowed for 1951.

The U.S. government's plan to keep total housing starts under a ceiling of 850,000 in 1951 seems to be moving almost exactly on schedule. That's pretty much the consensus of what BUSINESS WEEK reporters across the country found out from builders last week. On an average, starts were slowing down toward approximately 40% below last year's record 1.4-million—just the drop the government has been aiming at.

• **Confirming a Guess**—The 40% drop was what builders were guessing at a couple of months ago (BW—Feb. 17 '51, p19). The trend since then has enabled them to confirm it more definitely. The main reason is that the credit restrictions of Regulation X are just now catching up with them.

Up to now, builders have been plenty busy putting up houses on which they had loan commitments before Regulation X went through last fall. In fact, 75% to 80% of all starts so far this year have been on the basis of these pre-Regulation X commitments. In general, they will be responsible for a lot more starts right up until July. Labor and material shortages have been almost no problem so far.

• **Ahead of 1950**—The result is that right now the starts are running ahead of the 850,000 figure; there were 260,000 starts in the first quarter of this year. At that rate, of course, the year's figure would overshoot the target. But once pre-Regulation X housing starts to run out, it will be a different story. Builders all over the U.S. are practically unanimous in their belief that there will be a real nose dive in starts during the last half of the year.

As a matter of fact, most builders are feeling the crack of the credit hammer on their thumbs right now. It showed up in March housing starts, which ran at 93,000 this year compared with 117,000 last. And the gap will widen in each succeeding month from now on. In fact, the National Assn. of Home Builders feels that starts will fall off so fast during the last half of the year that there may be only 600,000 to 700,000 starts in 1951.

• **Credit Picture**—The credit bite is pinching the hardest in the \$10,000 to \$20,000 price field. That's because Regulation X prescribes (1) higher down payments on house sales; and (2) shorter term amortization periods. That has knocked the \$10,000 buyer right out of the market.

Another hitch on financing has developed lately: Since the rise in interest rates on government bonds, it's getting tougher and tougher to get insurance companies to take credit paper on housing.

• **Shifts in Markets**—The credit restrictions are most pronounced at the builder level. Some report that since the market in the middle- and low-priced range has practically vanished, they are switching to higher-priced homes—people wanting houses at \$35,000 and up have the cash for a high down payment; a lot of those below don't.

Others report another trend. The man who originally wanted a \$30,000 house now will settle for one at \$22,500. The \$22,500 man is down to \$15,000—and so on down the line, until you get to the \$10,000 man, who has decided to wait. To offset this trend,

some construction men are heading into the \$7,500 class in order to soften the down-payment bite for the low-income man.

• **What to Do?**—A lot of builders are up in the air, don't know what to do. Some are going ahead as usual; others have quit altogether for the time being. Robert M. Berkley of St. Louis, who last year built 100 houses in the \$9,500-\$18,000 price range, plans to build about 70 of them this year. "We are going to test the market," he says. "Your second group of starts in 1951 is when the restrictions are going to be felt. If after I build the first group they do not sell, I'm going to be damned cautious about going ahead on the second."

In Wichita, Kans., L. E. Gardner, Inc., is taking no such risks. Says the company: "We're not building at all. It takes too much cash, and the people who are moving here can't afford it. We're going to sit back and wait for the government to work out some solution. We can't afford to tie up capital and not find a market."

• **Special Lures**—Many builders have dodged the financing issue by going entirely into rental housing—which is a pretty sure market in itself. Others are thinking up special gimmicks to make people buy. In Cleveland, for example, some builders persuade prospects to sign a contract even if they don't have enough down payment for the completed house: They build up to the point the down payment would cover, which makes the house barely livable. The buyer can have it finished later on.

A Palo Alto (Calif.) contractor has come up with the neatest trick of the credit squeeze. Eichler Homes offers this: a \$13,000 home of three bedrooms and one bath for only \$1,500 down and about \$75 a month for 32 years and seven months. Normally, the price of this home would be \$4,000 down, with monthly payments of \$70 for 20 years.

The company can do this legally under NHA Sec. 213, Title II—because it has set up a cooperative tract. In order to get FHA approval, it has only to get applications for membership covering 90% of the 303 homes it plans to build. Since it got 24 applications in the first day, there's no doubt it'll make it.

• **Starvation**—Naturally, most builders are crying the blues over the restrictions; they feel that there's an almost unlimited market, given a credit deal that people can afford. But the fact is that they won't starve to death building 850,000 units this year—that's far above any normal prewar year. But their biggest worry now is that they won't even get to build the 850,000 they're entitled to. One thing they are anxious



Tri-Motor Comes Back

Biggest news in the Air Force's light assault transport, the Northrop Raider C-125, is the return to the tri-motor design. Northrop Aircraft, Inc., which makes the 40,000-lb. planes, added the third motor because the plane will be used to transport heavy loads in and out of small clearings and in rescue work in the Arctic planes. It can take off with the Jato rocket thrust in less than 500 ft., clear a 50-ft. obstacle in less than 1,000 ft. The Raider is far larger than the medium transport planes of World War II.

about is the setting up of defense areas. As soon as that happens, they will have the go-ahead to do a tremendous amount of building for the area.

Meanwhile, the builders are trying already to get credit restrictions relaxed. Their reasoning is based on the momentum of their industry. They point out that it takes four to six months for a builder to translate intention into excavation. This lag means that the industry is not only slow to cut its rate, but to increase it again. Therefore, they warn the government, it may not even get the 800,000-850,000 starts it expects this year.

Stockpile Buying Eases, Rubber People Think

The U.S. got its first hint last week that the government may be about ready to taper off on rubber stockpiling. The word came from Jess Larson, head of General Services Administration, testifying before the Senate Small Business Subcommittee. Larson said: "I am happy to report that we can see the day not too far away when we can report to the American people that our goal has been achieved."

• **Quick Change**—To tire executives, Larson's statement meant one thing: There has been a basic switch in policy in just the last two weeks. Only a week before, John D. Small, chairman of the Munitions Board, had told the same subcommittee that "we are not accumulating the stockpile fast enough."

Rubber people don't believe Larson would have made the remark unless the line had been laid down at higher levels. They're not too sure about what he meant by "not too far away." But they assume something should happen between now and midsummer. Anyway, there should be an immediate—and beneficial—effect on rubber prices.

• **Steady Attack**—Tire company executives had been blasting away at the stockpile ever since the Small Business Subcommittee opened its hearings early this month. Though the amount of natural rubber in the pile is secret, John Collyer, president of B. F. Goodrich Co., made what some observers call an educated guess at the total.

As of Apr. 3, he estimated, there were 725,000 tons of natural rubber in the hands of government and industry, with another 115,000 tons afloat. In addition, he figured U.S. and industry stocks of synthetic at 88,000 tons.

Coupled with synthetic output, Collyer said, the U.S. now has enough rubber to fight a four-year war without further rubber imports. He and other industry leaders labeled as "fantastic" a stockpile goal of 1.2-million tons to 1.5-million tons.

Buying Plans: Big But Hazy

FRB study of consumer finances indicates that consumers will be shopping about as heavily as last year for most items. But prices and shortages make plans fuzzier than before.

U.S. consumers take it for granted that prices are going to go up in 1951. But they don't intend to do much about it. They aren't going to stampede to get hard goods before the price hikes take effect.

On the whole, consumers intend to buy just about as much in 1951 as in 1950—if they can get the goods. Nearly as many people plan to buy houses; almost as many will invest in at least one major hard good outside of autos.

• **Forecasting Problem**—These are the conclusions that you can draw from the preliminary findings of the Federal Reserve Board's Sixth Annual Survey of Consumer Finances released this week. The study, conducted by the Survey Research Center of the University of Michigan, is based on about 2,800 interviews made during January and February in 66 areas throughout the country.

The FRB surveys in past years have thrown a lot of light on what consumers intended to do. But if you want to use the 1951 survey as a forecaster, you probably need to be more than ordinarily cautious. The ups and downs of the war news may change consumers' minds suddenly. And even if there are no more serious scares, it may turn out that the heavy buying that has already taken place this year will throw consumers' calculations out of whack. At the very time the survey was taken, there was a counterseasonal boom in retail sales that had all the earmarks of panic buying.

• **No Drop**—Taking the survey at its face value, you can figure on little or no decline in the number of consumers who are considering paying out for a television set, a refrigerator, furniture, or some other hard good. There's less certainty about the purchases, but that's to be expected.

On automobiles, however, there are definitely fewer people shopping for new or used models than there were last year. The main cause could be any one of a number of factors—the prospect of defense cutbacks, credit restrictions, anticipatory buying last summer and fall, or uncertainty among consumers about future income.

Another obvious difference in auto-buying plans this year is in the timing of the purchases. A substantial majority of consumers would go into the market during the first half of the year. In 1950 the heaviest buying was in the last six months.

This same turnabout applies to buying plans for television sets. More people intend to shop early.

• **Houses Wanted**—Almost as many consumers are thinking about buying new or existing houses as in 1950. But plans are hazier this year, and fewer people are in the market for new houses. Undoubtedly, the two things are tied together. Uncertainty about supply, price, and quality has steered many consumers away from new homes.

Only about three in 10 consumers are familiar with the government's curbs on real estate credit. Of the ones who know about them, 5% to 10% say the regulations have affected their buying in some way. Figured on an over-all basis then, only 2% to 3% of the non-farm population is directly affected by the credit clamps.

• **Higher Prices**—Almost no one sees any downturn in prices for this year. At least seven in every 10 consumers believe prices of the things they buy will continue on up. For most people, price controls made no difference. Interviews before and after the Jan. 25 freeze show about the same sentiment.

• **Income and Assets**—Last year about three in every 10 people thought their incomes would rise over the months ahead. This time there is slightly more optimism: 40% of the consumers figure there will be more cash coming into their pockets before the year is out.

However, there are still four out of 10 who see no change in income, and there is one out of 10 who sees his pay getting smaller. This means that a greater proportion of consumers expect prices to go up than think their incomes will increase. And that probably explains some of the haziness in purchasing plans.

Comparing their pocketbooks with a year ago, more people think they are worse off now than think they are better off. This is true even though twice as many consumers had income jumps in 1950 as had drops.

• **In the Sock**—As far as liquid assets go, there is no change in the proportion of consumers who have something waiting to be tapped. Seven in every 10 consumers have cash in the bank or in savings bonds. The only drop seems to show up in the proportion of consumers who have large amounts of liquid assets (more than \$2,000). And the decline here is concentrated among those with high personal incomes (\$5,000 or more).



THEY TALKED John H. Furbay, of TWA, spoke of the importance of aviation, said it is a national or international, not a local, matter. Eastern Airlines' chief check pilot, S. R. Parkinson, explained runways and flight patterns.



THEY TALKED BACK Lawrence Martin felt local regulation was the answer to noise-abatement problems. Mrs. Harriet Ramos said 3 a.m. planes keep her awake. Patrick Gallagher insisted aviation is a local problem.

Why Planes Have to Be Noisy



JOYRIDE After the meeting was over, everybody went flying, saw the sights, ate a free lunch, practiced landings and takeoffs (some got sick).

Noise and low-flying planes are a perpetual annoyance to people who live near any major airport. And their gripes about it are a perpetual headache to airlines, airport operators, and the Civil Aeronautics Administration.

The gripes of residents around New York's LaGuardia Airport have been getting louder and louder. So, early this month, CAA held a meeting at LaGuardia, invited representatives of all the civic groups that had been griping. They made a day of it. First they were told about the importance of aviation and the problems involved in landings and takeoffs. Then they fired questions about noise and safety at a panel of experts. Finally, they went on a two-hour flight, complete with lunch.

They had a wonderful time. But they still don't like the noise.



NEW MACHINERY to build Fairchild C-119 transport planes moves onto floor of Kaiser-Frazer's Willow Run plant, while auto assembly line continues rolling behind.

War Plants: Still Tooling Up

Deliveries on defense orders will hit \$2.3-billion this month. But Business Week survey shows that industry isn't near full stride. Most companies are still buying new machines, building new plants.

If you go by statistics, right about now is the time when you would expect to see some results in the defense production program. The Pentagon will tell you that in the past nine months it has let contracts for some \$23-billion in munitions and that deliveries this month will total about \$2.3-billion.

But to get a more tangible idea of the state of industrial mobilization, BUSINESS WEEK correspondents made an on-the-spot check of plants across the country last week.

• **Tooling Up**—What they found is pretty accurately symbolized by the picture above. Most plants are still tooling up, moving new machinery onto the floor right alongside production lines that are turning out civilian goods.

In Alabama, for instance, \$35-million worth of contracts for artillery shells have already been let by the Birmingham Ordnance District. Yet none of the contracting plants has gone into actual production. They all estimate that it will take them from two to four months before they can turn out a shell. Some of the plants are ordering new machinery; others are building extensions to their plants or leasing buildings to house the new production lines.

• **Wide Trend**—It's the same story in Chicago. Hotpoint says it won't be able to get under way on its big contract to assemble jet engines before next January. International Harvester has

yet to build the plant in which it will produce a special vehicle for the Army.

In Buffalo Chevrolet is now spending \$100-million to tool a World War II surplus plant for production of jet engines. Buffalo Arms, so far a corporation in name only, has still to procure a plant, tools, and men before it gets going on a contract to make over \$4-million worth of machine guns.

General Motors, with defense orders totaling over \$3-billion, is further advanced in military production than the average. Its Aero Products Division in Dayton is producing for the Air Force almost exclusively. And its Cadillac Tank plant in Cleveland, while it just pushed its first tank out of the plant, expects to be turning out a fair volume by midsummer. Employment there is 3,700 now; it will go to 16,000 at capacity.

• **Lag on the Coast**—In Los Angeles the bulk of manufacturers that have had no previous experience in munitions making haven't got much in the way of defense orders yet. They report that the process of contract placing is little improved over what it was six months ago. And they complain of slow negotiation—even on critical items.

But aircraft, instrument, and electronics builders there are working near capacity on defense orders. And probably the biggest part of Los Angeles defense business is still ahead. The

area may become a center of guided-missile production.

There are still a number of companies that produced for the military during World War II but that haven't taken on any defense orders this time. St. Louis Shipbuilding & Steel Co., St. Louis, Mo., is an example. Its president, H. T. Potts, says that his company has a year and a half's backlog of private orders for barges, derricks, and towboats. It has signed up to take government work if asked to, but Potts hopes he doesn't get any DO orders to fill for a while. "We have enough private work," he says.

• **Cutbacks Light**—On the whole, manufacturers report no serious cutbacks in production of nonmilitary items due either to a shortage of materials or a drop in demand, though there are some scattered instances. In Cleveland makers of home appliances have had to curtail output by about 20%. Where material shortages have threatened to stifle production, some companies in this area have scurried to neighboring companies, overloaded with work, and obtained subcontracting jobs.

A drop in demand has taken its toll recently in the TV industry. In the past two weeks, radio and TV plants in Chicago, for instance, have laid off about 10,000 workers of roughly 35,000 who are employed in the industry in the city. TV builders in Los Angeles felt the same slack, but they took it up by cutting the work week down to three days rather than laying off workers.

• **Employment Pinch**—In general, the increase in the number of new jobs opening more than absorb the number of workers being laid off because of material shortages or slackening demand. In Milwaukee this week, there are 5,000 listed job openings and only 4,000 applications for employment on file. Several manufacturers in that city have increased employment as much as 40% after securing military contracts.

In Syracuse the employment figure for some 400 factories in the area is expected within the next month to top the high of 61,000 that it hit during World War II. After that, manufacturers foresee a painful pinch in the manpower shoe.

Buffalo faces the same prospect. Says the manager of American Machine & Foundry—which expects to be working 70% of capacity on military orders in six months—"Send me anybody who is warm."

A check on half a dozen firms in Milwaukee shows that military orders are absorbing 30% of output. Generally, it's lack of materials rather than lack of demand that is bringing a curtailment of production. In Cincinnati war work is making up from zero to 80% of production in various local plants.



NATIONAL ADVISORY BOARD'S first official act is recommendation by which . . .

Labor Puts Truman on the Spot

With farm and public members of advisory board, it beats down industry objection to giving disputes-settling power to a new Wage Stabilization Board.

Organized labor scored a dramatic coup this week. It got both the agriculture and public members of the National Advisory Board on Mobilization Policy to go along with the sort of recommendation it wanted for a new Wage Stabilization Board. In a 12-to-4 vote, only industry members stood against the plan.

The bulk of the board asked the President to save WSB as a tripartite agency and to give it additional power to make recommendations in labor disputes that threaten national defense. In a sense, that put the President in a spot. If he had turned down the recommendation, he would have found himself in an even deeper mess with labor leaders. He would also have been off to an extremely bad start with his new mobilization advisory board.

Truman had no choice but to go along.

• **The Plan**—In detail, this is what the board asked Truman to do:

(1) Reconstitute WSB as an 18-man tripartite body with six representatives each from the public, labor, and industry. (WSB hasn't functioned since labor members quit Feb. 16.)

(2) Give WSB authority to act—not just on wage issues as industry wants—but in any dispute submitted jointly by the disputing parties or certified by Truman as "substantially threatening" national defense.

(3) Have WSB report to the President its recommendations for "fair and equitable settlement."

The plan deviates only slightly from the one Johnston and labor have been trying to sell to industry representatives for several weeks. The only important difference is that, instead of settling disputes, WSB would issue only "recommendations" to Truman.

• **Departure**—Until labor got the rest of the nonindustry board members to back its plan, the prospect was that an all-public board, with no disputes functions, would be set up. Anything more than this seemed sure to run into industry opposition. And both Truman and Eric Johnston were conscious of what the Justice Dept. had told them: Under Title V of the Defense Production Act, any disputes-settling machinery must have labor, management, and public agreement.

But the advisory board, in its recommendations, threw the legal technicalities into the wastebasket. Truman did the same.

I. Two Months' Work

Truman's action climaxed more than two months of efforts, largely by Johnston, to reactivate WSB. During this period more than 300 wage settlements requiring WSB approval have piled up.

Here's the sequence of events that led up to this week's move:

In March, stabilizer Eric Johnston, CIO head Philip Murray, and Otto Seyerth, president of the Chamber of Commerce, spent almost a whole Sunday in a Washington hotel room. At the end of the day, Johnston thought he had an agreement—a plan that would let WSB settle disputes certified to it by Truman.

But Justice Dept. decided that public members were not present, as required by Title V.

Then Seyerth, reportedly, withdrew his agreement.

Johnston flew down to see Truman at Key West.

On Mar. 14 the Chamber of Commerce and the National Assn. of Manufacturers officially turned down the plan. Their stand was that no government board should have the power to settle disputes that did not involve pay issues.

Truman appointed his advisory board. He gave it the WSB problem as its first assignment.

The advisory board discussed the plan that Johnston had proposed, and labor accepted. Substantially, it was the same plan that is now on Truman's desk, except that WSB would have actually decided disputes instead of making recommendations. NAM and the chamber objected.

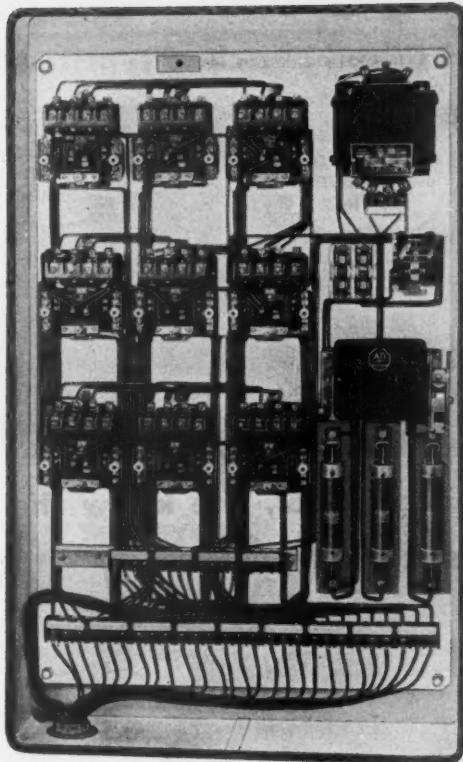
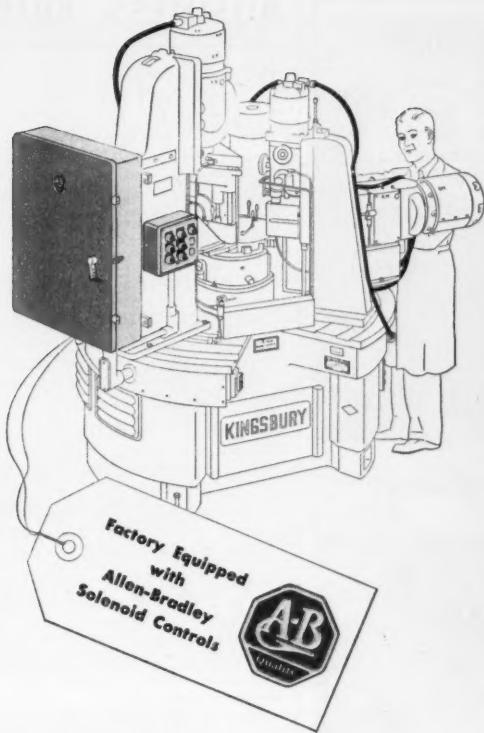
Industry got a two-day recess to consider the Johnston plan some more.

When the board reconvened on Thursday, Apr. 12, there was little progress during the morning session. Walter Reuther got Charles E. Wilson to suggest that the labor and management members have lunch together.

They did, in Murray's suite at the Hay-Adams Hotel. There Reuther laid out the plan that has now been recommended. Labor spokesmen claim that Seyerth, Claude Putnam, Marion B. Folsom, and Samuel A. Smith (industry members of the board) agreed to it. Industry sources claim that they only accepted it as a possible "basis" for agreement.

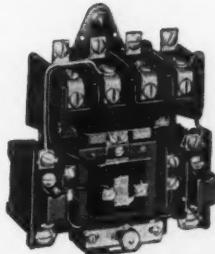
Before returning to the afternoon session, the industry men discussed the plan with the NAM Mobilization Committee and with chamber representatives. The NAM decided the plan was important enough to be put before the NAM Industrial Relations Committee, which was summoned to meet in Washington last Monday.

On Monday, 43 members of the NAM committee, some flying in from the Far West, disapproved the plan and stuck to the stand of Mar. 14, when Johnston's plan was turned down. The chamber went along. However, neither went so far as to suggest that their organizations would not cooperate with a board set up under the proposal.



Close-up of Allen-Bradley Control Panel.

Kingsbury AUTOMATIC DRILLING and TAPPING MACHINE Operated by an Allen-Bradley Control Panel



Allen-Bradley Bulletin 709 Solenoid Starter.
Only one moving part.
No other starters are so simple or so trouble free.

The famous Kingsbury Automatic Drilling and Tapping Machine is designed to drill, tap, ream, counterbore, countersink, mill, or perform any other operation by means of a rotating tool. This versatile machine comes factory equipped with an Allen-Bradley Control Panel containing nine A-B Bulletin 709 Solenoid Starters, one for each of the seven spindles, one for the coolant pump, and one for a small conveyor motor. These Allen-Bradley solenoid starters . . . with their patented silver alloy, double break contacts . . . give long, trouble free performance in the severest high production service.

It will pay you to investigate Allen-Bradley controls. They are a recognized sales asset to any motor driven machine.

Allen-Bradley Company, 1332 S. Second St., Milwaukee 4, Wis.

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL

QUALITY



BUSINESS BRIEFS

I asked our chief typist a question...

HOW CAN A FIRM
SEND OUT SUCH A
BLURRY BULLETIN
AS THIS?

IT'S THE PAPER THEY
USE, MR. BARNES. THANK
HEAVEN, WE USE HAMMERMILL
MIMEO-BOND!

as usual, she knew the answer!

SEE HOW MUCH CLEARER OUR BULLETIN
LOOKS! AND WE GET AS MANY AS 5,000 COPIES
FROM A SINGLE STENCIL... WITH EVERY ONE JUST
AS CLEAN AND EASY TO READ AS THIS ONE!

That's why I'm glad we use Hammermill Mimeo-Bond!

Hammermill Mimeo-Bond comes in white and seven distinctive colors, enabling you to put your message on a "Signal System" color, readily identified as your own. Examine Hammermill Mimeo-Bond in your own office at no expense. Send the coupon for an up-to-date sample book. We'll include the Hammermill idea-book, "Better Stencil Copies." THEY'RE FREE!

HAMMERMILL MIMEO-BOND



You can obtain business printing on Hammermill papers wherever you see this shield on a print shop window. Let it be your assurance of quality printing.



Hammermill Paper Company, 1455 East Lake Road, Erie 6, Pennsylvania

BW-4-21

Please send me — FREE — the sample book of Hammermill Mimeo-Bond and a copy of "Better Stencil Copies" to help me get the best out of my stencil duplicating equipment.
Name _____



Position _____

(Please attach to, or write on, your business letterhead.)

LOOK FOR THE WATERMARK... IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC

The Donora smog suits were settled out of court by American Steel & Wire —apparently for \$235,000. Involved were about 130 actions asking damages of \$4.6-million. The suits grew out of the freak smog that blanketed Donora, Pa., for five days in 1948; 22 people died during it, and 5,910 became sick.

Rate increases: Railway Express got a temporary one of 20¢ on less-than-carload shipments, pending Interstate Commerce Commission action on an application for 25¢. . . . Pullman Co. asked ICC for a 15% boost in sleeping and parlor car rates.

Bus prices were cut by Twin Coach Co. for the first time in five years. Slashes ran from 10% to 12% on the company's new line. Major factor, it said, was an arrangement with Freighauf Trailer for mass-produced bodies.

About 50,000 jobs are open on the rolls of state employment offices, the Bureau of Employment Security said. Needed most: mechanical and electrical engineers, other technical and skilled workers (page 118).

An investigation of Colonial Airlines was ordered by the Civil Aeronautics Board. The board said there were signs that the company and several of its officers may have violated the Civil Aeronautics Act. It mentioned sections of the law dealing with rebates, tariff observance, and the keeping of records.

Two more interchange pacts between airlines (BW-Apr. 7 '51, p68) were tentatively approved by CAB. In one—between Panagra (Pan American-Grace Airways) and National Airlines—CAB set what could become precedent. It ruled that National must pay Panagra for the use of Panagra's planes on the basis of National's costs, which are lower. The original proposal called for using Panagra's costs.

Kaiser-Frazer cut back auto production by 50% and laid off about 3,000 workers. The company blamed shortages of copper and steel parts. However, Detroit feels slackening sales had a lot to do with it.

No more rubber bands, New York State told all departments. Once the present supply runs out, officials will have to get along with string. The reason: prices too high.



...Sperry
Gyro-Pilot

► Automatic straight steering is an invaluable navigational aid to vessels of all types . . . especially when missions take them to far off ports. The accurate steering provided by the Sperry Gyro-Pilot gets a ship from port to port over the shortest course, in the fastest time, with the least fuel.

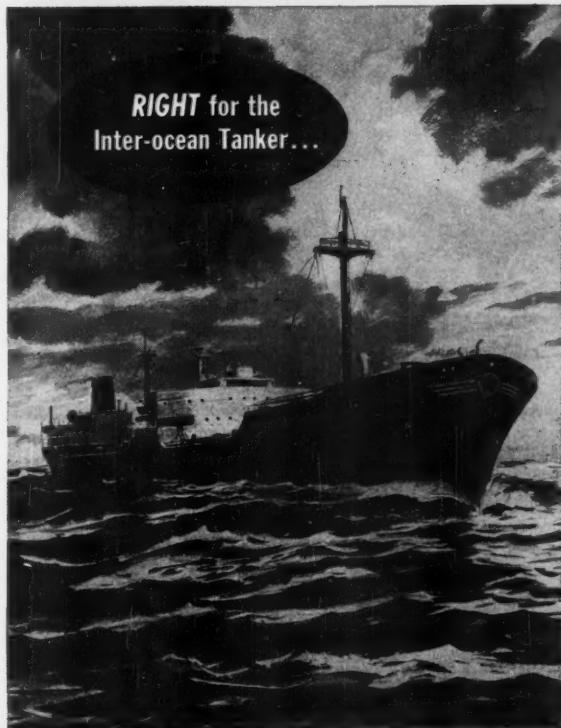
► Typical of the thousands of Sperry Gyro-Pilot-equipped ships the world over are the Military Sea Transportation Service's *General R. M. Blatchford* and The Texas Company's tanker *Pennsylvania*.

► Now chartered to the International Refugee Organization, the *General R. M. Blatchford* is bringing thousands of displaced persons to the United States. Other vessels of MSTS carry personnel (including sick and wounded), mail and other cargoes for all agencies of the Department of Defense.

► Operations of The Texas Company's tankers are likewise inter-oceanic. Their month long trips to and from oil ports expose them to every sea extreme.

► When the Sperry Gyro-Pilot, is aboard economies are effected by making good the courses prescribed . . . by minimizing wear and tear on the steering mechanism in applying only small rudder angles.

► For further details, write our Marine Department.



SPERRY
GYROSCOPE COMPANY



Emergency

At 3:30—the call!

At 4:45—the check!



The personnel manager received the news at 3:30 p.m.

An employee had passed away. His family needed money immediately. It was an unusually urgent case.

The personnel manager picked up the telephone. He gave details of the death to the Claim man at the field office of The Travelers downtown.

The check on a local bank was made out and signed. A special messenger called for the envelope.

At 4:45, the personnel manager had in his hands full payment of the death claim under the employee's Travelers Group Insurance policy. It was delivered to the man's family before sundown.

How can The Travelers give such speedy service on a Group Insurance claim? The

answer lies in Travelers continent-wide service organization with 200 field offices—many more field offices than any other company writing Group Insurance.

There may not be a Travelers Claim man downtown in your city. But there is a Travelers office near enough to your business to give you faster service on your Group Insurance plan whenever the situation calls for it.

Prompt payment of claims—especially in emergencies—is vitally important to your employees and their families, when misfortune strikes. And it is also important to you, if you want your Group Insurance plan to bring you the greatest

return in terms of employee satisfaction, employee good will.

For a Group Insurance plan tailor-made to suit your business, see your Travelers agent or broker.

ON ALL FORMS OF EMPLOYEE INSURANCE
YOU WILL BE WELL SERVED BY

The Travelers

The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, The Charter Oak Fire Insurance Company, Hartford 15, Connecticut. Serving the insurance public in the United States since 1864 and in Canada since 1865.

LABOR

IUE Hits Snag at Westinghouse

Company threatens to shut down plants unless fledgling union curbs wildcat strikes. Meanwhile, leftist UE starts contract talks while rival is stymied by dispute over grievances.

When CIO's fledgling International Union of Electrical Workers declared war on the leftist United Electrical Workers (ex-CIO), it hoped for management support against UE.

The hope didn't last long. IUE found that the sympathy of many employers was for UE, instead. They didn't approve of the left-wing union's political slant, but they liked its record of strict compliance with contracts.

For two years now, IUE has been trying to build up a similar record of responsibility. It's been up against two hard barriers—lack of a tight control over members and inability to backtrack on anything for fear of falling behind UE benefits.

• **At Westinghouse**—This week IUE ran smack into the barriers again at a critical period in bargaining with Westinghouse. Both IUE and UE are out to consolidate Westinghouse holdings with solid contract gains. But while UE and the corporation are getting down to bargaining, IUE can't yet. The corporation is demanding assurances that IUE will in the future "abide by its contract and conduct itself as a responsible union."

Westinghouse has a no-strike clause in its contract with IUE. In spite of it, says the corporation, plant operations have been hampered by "unauthorized IUE wildcat strikes" for more than a year.

Stoppages occurred 88 times last year and cost 127,542 man-hours of work, according to the corporation. This year there have been 33 stoppages, and 118,103 lost man-hours. And Westinghouse says "this situation is growing progressively worse."

IUE must take immediate steps to get its house in order, the corporation said, or plants will be shut down.

• **No Idle Threat**—The threat came after a one-day work stoppage at Westinghouse's big East Pittsburgh works. Few took it seriously at first. But the corporation soon showed it meant business: It shut down the Westinghouse Sharon (Pa.) transformer plant, furloughing 4,000, after 600 IUE members walked out over incentive rates.

The corporation repeated its warning that a similar fate lies ahead for other plants if wildcat walkouts continue.

The company action—and the stir of worker resentment it caused—came as a blow to IUE officers. Their sights were on quick and peaceful bargaining late this month on a wage increase and, perhaps, a union shop for Westinghouse. They had counted on relatively quiet relations with the corporation helping to get them.

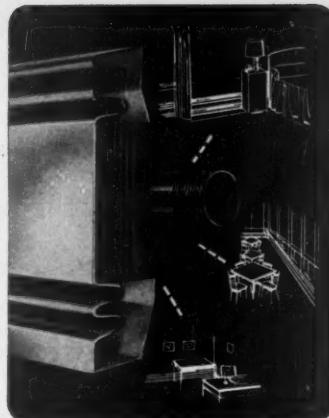
Union officers cautioned Westinghouse locals against stirring up too much trouble and sought to make peace with management. But at the same time, IUE complained against an "obvious" effort by Westinghouse to weaken IUE's bargaining position in order to force a lower settlement with UE.

• **The Issue**—What IUE objects to, particularly, is Westinghouse's timing on a demand for orderly procedure in handling grievances. The union admits that changes should be made, but it contends that this is hardly the time to try to force them on IUE—because they are changes in a system that the corporation let go unchallenged in years of dealing with UE.

The touchiest involves a "free roaming" right given to division stewards in many Westinghouse plants—that is, the right to sign out with their own foremen when called on to handle a grievance, to go wherever they want to for as long as necessary, and to sign in again when ready with their own foremen.

Westinghouse complains (and IUE admits) that the right is frequently abused. For instance, division stewards frequently leave the plant completely, for a visit to a beer joint, during "free roaming" time. The corporation wants IUE to agree to a series of check points for division stewards—planned not to restrict their movement, but to keep tabs on the time they spend on grievances. IUE objects to any attempt to "strap its stewards to machines" since UE stewards used to have free run of the plant.

Why the objection, when the union admits abuses exist? IUE doesn't want to take away from the influential division stewards any right that UE won for them; the reason is obvious, since UE is trying to woo back its former members.

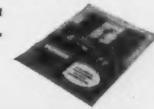


engineered **up**
to performance
not **down** to
price

At Dunham, nothing takes priority over product performance. First consideration is always given to quality of design, construction and materials.

Take Dunham Baseboard Radiation, for example. Its quality features assure distribution of heat to every part of the room; permit wall-to-wall carpeting; conceal all piping to give a neater-looking installation. Individual room heat control dampers effect added convenience and economy.

Dunham Baseboard is easy to install anywhere . . . in homes, offices, apartments, schools, hospitals, factories . . . in new construction as well as old. For complete information, write for Bulletin No. 639-D-7. C. A. Dunham Co., 400 W. Madison St., Chicago 6, Ill. In Canada: C. A. Dunham Co. Ltd., Toronto. In England: C. A. Dunham Co. Ltd., London.



DUNHAM
BASEBOARD HEATING

DUNHAM

heating systems and equipment



BOX BY ROBERT GAIR

QUICK-GRAB RESIN radically changes box corner taping

UP TO A YEAR ago, it was standard box-making practice to join the corner of the conventional fibre shipping container with pre-gummed tape moistened with water. Now, under a completely new method, DAREX Resin Emulsion Adhesive, a liquid, is applied wet to unguessed tape.

Strong initial tack produces an anchored-on bond at high machine speeds. The live adhesive, non-crystallizing, keeps the tape secure with no pop-offs. Weatherproof, DAREX Resin Emulsion Adhesive resists changes in temperature and humidity, even immersion in sea water. It will not attract mold growth or vermin. Neither adhesive nor tape deteriorate in ordinary storage. Waste is eliminated.

This remarkable series of adhesives meets more than ten Government specifications for the seams or joints of shipping bags and sacks, barrier materials, case liners and case sealing. A special applicator adapts existing production lines to its use, simply and inexpensively.

DAREX is the trademark applied to many of the products that have grown out of Dewey and Almy research. For thirty years these products have been helping people do a better job in such diverse fields as food, clothing, housing, health, transportation, recreation . . . and national defense. Write us at Cambridge, Dept. 85A.

How can we help you?

★ **Dewey and Almy**

**CHEMICAL
COMPANY**

ADAMS Cambridge 40
CHICAGO CEDAR RAPIDS
LONDON BUENOS AIRES NAPLES
MONTREAL PARIS MELBOURNE
★

UAW Loses Wisconsin Bid

CIO union went all-out to organize 4,000 workers at Kohler Co. in opening of statewide campaign. But majority voted to keep the independent Kohler Workers Assn. as bargaining agent.

In Wisconsin, United Auto Workers (CIO) counted heavily on winning an organizing attempt at Kohler Co. to set off a statewide organizing drive. It put everything it could muster into the campaign to win the Kohler plant.

It lost. Two weeks ago a majority of the 4,000 production and maintenance workers at Kohler voted to keep the independent Kohler Workers Assn. as their bargaining agent.

• **The Campaign**—The CIO union swung into action against KWA two months ago. It criticized the independent as "company dominated" and urged its rejection by workers interested in "real union representation" at Kohler.

KWA hit back. It called on Kohler employees to "keep the outsiders out" and warned that a victory by UAW would take "at least \$100,000" out of the pockets of Kohler workers.

Campaigning was orderly and peaceful—but intense. At the climax, UAW's dynamic president, Walter Reuther, showed up in Kohler to exhort workers personally to leave "the company union" and join UAW. But the independent won a National Labor Re-

lations Board poll by 2,064 to 1,575.

• **Second Win**—The victory was the second for the home-grown KWA over a national union. In 1946 it beat an AFL rival even more decisively.

KWA got its start in 1934 when AFL first tried to organize Kohler workers. Until then, company employees had shown no real interest in a union. The big reason was Walter Kohler, Sr., then president of the company and a former governor of Wisconsin. (His son, Walter Kohler, Jr., now governor of Wisconsin, is president of the Vollrath Co., of Sheboygan, Wis. Another member of the family, Herbert V. Kohler, now is president and board chairman of Kohler.)

Walter Kohler, Sr., had always had an idealistic—AFL called it "paternalistic"—labor policy. His employees were well-paid and also had what were, by 1934 standards, unusually liberal welfare benefits. Kohler also was popular among employees for his deep consideration for those on Kohler payrolls. One example: He kept the plant running during the depression, when others were shutting down, to avoid layoffs; the plant made plumbing sup-



AFL Longshoremen "Strike" for Gen. MacArthur

President Truman's ouster of Gen. MacArthur split labor just as it did all other groups. Members of the International Longshoremen's Assn. (AFL) quit work on New York docks for two hours to demonstrate 2,000 strong against the move. ILA

rank-and-filers criticized Truman for cracking a strong front against communism. But the equally anti-Communist National Maritime Union (CIO) took an exactly opposite position: NMU backed Truman for acting to keep war from spreading.

UNDERDRIVE PRESSES simplify material handling

IN FORD'S NEW BUFFALO STAMPING PLANT

In producing big stampings, material handling efficiency is vital. Danly Underdrive Presses like the one shown here help solve the problem in the huge new Ford Motor Company Buffalo Stamping Plant. Underdrive press design provides maximum headroom for crane clearance and permits press servicing and maintenance on a sub-floor level. The actual working area is clear and unobstructed.

Danly Underdrive Presses incorporate all of the exclusive Danly features that assure steady, dependable press operation—the Danly Cool-Running Clutch, pressure lubrication and precision construction. Call a Danly Press Engineer today for detailed discussion of the application of Danly Presses to your stamping operation.



DANLY

IT COSTS LESS
TO RUN A DANLY PRESS

DANLY MACHINE SPECIALTIES, INC.

1000 Ton Danly Underdrive Press shown in operation, producing floor panel stampings for Ford automobiles. Bed area of press is 180" by 100". The conveyor feeding the press, part of Ford's "Automation" system for mechanical material handling, is synchronized with the press cycle.

American Blower...a time-honored name in air handling



Miami, too, has a conveniently located American Blower Branch Office to provide you with data and equipment for air handling. You can reach American Blower in Miami by calling 7-4968. In other cities, consult your phone book.



TICKETS PLEASE...

Whether it's theaters, auditoriums, or sports arenas, you can count on American Blower Air Handling Equipment to keep your customers comfortably cool. American Blower fans and air washers form a complete, compact method of comfort cooling at low cost. The fan provides a supply of circulating outdoor air. The air washer cleanses, purifies and freshens the air while removing dust and water soluble odors.



NUMBER PLEASE...

"Pleasant working conditions" is high on the list of reasons why people like to work for this telephone company.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

YOUR BEST BUY

AMERICAN BLOWER
AIR HANDLING EQUIPMENT

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWAENE BOILERS • ROSS HEATER • TONAWANDA IRON

plices until every barn in Sheboygan was filled with Kohler inventory.

• **AFL Tochold**—Despite the high regard for Kohler, AFL got a toehold among workers in the plant in 1934 and set up a local union. It asked for recognition and a contract. Management refused. A violent but unsuccessful AFL drive followed.

Walter Kohler, Sr., was deeply concerned over the bloodshed during the dispute and shortly afterward died. Plant workers who had set up their own independent KWA after beating AFL blamed the labor troubles for Kohler's death. This increased their opposition to national unionism.

• **Independent in Deed**—At first, KWA was consistently willing to string along with any policy decision by the Kohler management. In recent years it has been more and more independent in action and frequently has been strongly critical of plant policies.

Largely because of this, the old cries of "company union" died down almost to whisper. UAW raised them again, with renewed vigor, when the Kohler management's sympathies—if not support—appeared clearly for KWA.

Scheduled Absenteeism Didn't Work Out at Ford

The Ford Motor Co. and United Auto Workers (CIO) are no nearer a solution to their absenteeism problem than they were six months ago. An experiment with a plan designed to cut absences has been terminated. Nobody wants to talk about it—but it's evident the plan was a flop.

The plan was put into effect in three plant units. Records of all employees were cleared of past unexcused absences. Workers were told they could be absent, without any penalty, for three shifts in each 60 days—provided no more than 6% of their departments were absent on any one shift (BW-Sep. 30 '50, p113). If 6% stayed away, absentees would be penalized.

• **It Didn't Work**—Ford and UAW figured that the 6% rule would influence workers to plan and schedule their absences. UAW jubilantly proclaimed the plan and urged workers to cooperate. But, apparently, few did. Absenteeism figures went up, not down. The 6% limit on absenteeism without penalty was exceeded more and more. Each time, workers griped at penalties more than they had under the old penalties system.

Recently, after the six-month test period, the plan was formally dropped. Absenteeism will be treated henceforth in the traditional manner—first reprimands, then stiffer and stiffer penalties as lost days increase.

STANDARD FRUEHAUFS fill a "Specialized" hauling need for R.P. Scherer Corp.



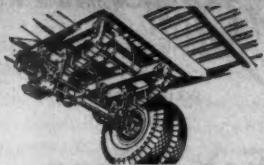
R. P. Scherer Corp., Detroit, world's largest producer of soft gelatin capsules for vitamin, medicinal, food, veterinary, cosmetic, industrial and pharmaceutical uses, orders these standard insulated Fruehaufs for local and long-distance hauling.

"**B**ECAUSE of the high value and semi-perishable nature of the vitamins, drugs, etc., contained in our capsules, fast, safe and dependable deliveries are essential in our distribution. Standard Fruehaufs fill the bill for us, and eliminate damage claims. We attribute this to the sturdy, soundly-engineered construction and the highly efficient insulation in our Fruehaufs," reports R. E. Neil, Traffic Manager, R. P. Scherer Corp. "Our trailers travel approximately 200,000 route miles yearly, hauling capsules from Detroit to the East, for distribution to all parts of the globe, returning homebound with bulk chemicals."

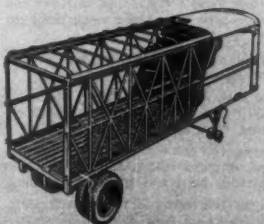
Thousands of companies, like the R. P. Scherer Corp., in over 100 different industries, have found in Standard Fruehauf units — Trailers and Truck Bodies—the answer to their "specialized" hauling needs.

If you're looking for new ways to speed up your deliveries and cut distribution costs, it will pay you to investigate the advantages of operating your own Truck-Trailer transportation system. Fruehauf offers you a free "Transportation Cost Analysis" of your business. Write to the **TRUEHAUF TRAILER COMPANY, 10941 Harper Ave., Detroit 32, Mich.**

MOTOR TRANSPORT SERVES EVERYBODY . . . EVERY DAY
... bringing you nearly **EVERYTHING YOU EAT, WEAR AND USE!**
More than 25,000 U. S. communities are solely dependent upon Trucks and Truck-Trailers for this vital service. As our nation's second largest industry, 1 out of every 7 American jobs is in the field of motor transport.



GREATER LOAD CUSHIONING is provided in Fruehauf's patented "Multi-Rate" Suspension. Trailer rolls smoother, providing proper springing for all road or load conditions . . . from no load to overload. Free rolling, cushioned, level ride cuts product damage, increases tire life, saves gas—easier on driver, too.



GREATER LOAD PROTECTION is provided in Fruehauf's patented integral-frame construction of hi-tensile pressed steel. This rugged all-welded bridgework gives greater strength with less weight . . . for bigger payload capacity. Trailer is engineered . . . roofs, doors, floors and insulation . . . for long life with low upkeep.

FRUEHAUF Trailers

WORLD'S LARGEST BUILDERS OF TRUCK-TRAILERS



Save time and give accurate production instructions with copies on

Cotton-fiber
Onion-Skin

WATERMARKED
by

Fox River

*Cotton-fiber makes the finest BUSINESS, SOCIAL, AND ADVERTISING PAPERS

When you say it on paper, everyone understands. And printed forms on cotton-fiber FOX RIVER onion skin are the economy-way to say the same thing to many people.

Save labor—so thin that one writing makes all the clear copies you need.

Give fast, accurate routing—the color of the paper denotes the department addressed (6 available colors).

Stay on the job—the unusual strength found only in cotton-fiber onion skin withstands hard and frequent handling. Free samples from your printer for testing, or write us on our business stationery.

FOX RIVER PAPER CORPORATION
1327 S. Appleton St., Appleton, Wis.

OTHER ONION SKIN USES IN YOUR BUSINESS



Overhead Stationery

Circulars

Price Books

Are Strike Benefits Taxable?

They're income, and are, says Bureau of Internal Revenue. They're relief payments, and tax-free, says UAW. Since UAW paid out over \$5-million in benefits last year, it's a big issue.

The Bureau of Internal Revenue and the United Auto Workers (CIO) are at odds this week over a unique income-tax question: Are benefits paid by a union to striking members taxable income or tax-free relief payments?

The dispute may very well turn out to be just another tempest in a teapot. But UAW's international officers in Detroit think it is highly important, although BIR in Washington professes not to. As far as the bureau is concerned, the whole affair is just routine—and likely to stay that way.

• **The Issue**—Since 1920 BIR has maintained that benefits "received from a labor union by an individual member while on strike are to be included in his gross income . . . there being no provision of law exempting such income from taxation." BIR says this rule is just as binding today as 30 years ago.

However, BIR has never made any

special effort to enforce the rule. It says it "expects" benefit-recipients to list whatever they receive as income and to pay taxes on it. But so far the bureau hasn't scrutinized returns to see that they do.

UAW doesn't see strike benefits as income subject to taxes. It argues that the payments from unions are "relief" grants—and since other relief payments aren't taxed, strike benefits shouldn't be.

• **New for UAW**—Other unions, particularly AFL craft unions, have argued that way in the past, without ever pushing the issue to a court showdown. UAW is getting into the act late because the BIR rule never bothered the auto union before this year. UAW didn't make a big thing of strike benefits before 1950.

Last year the auto union levied a \$1-a-month strike assessment on all of its members. It collected \$8,875,411



TV Artists Perform—as Pickets

Though artists of station KFI in Los Angeles are on strike, they still appear before video cameras—in daily newscast shots of their picket line. They've been on strike since Apr. 5 to enforce a demand for KFI recognition of AFL's Television Authority as bargaining agent. The Television Authority is a sort of holding company for unions of show people in TV (BW—Sep. 16'50,p122). It claims to represent a majority of artists working for KFI. The station management says it doesn't and wants a

National Labor Relations Board election. So far, the Television Authority has balked at that—not so much because it might be defeated, but because it has always got other stations to recognize it without a poll. It doesn't want a precedent set for elections. The artists' strike, supported by the American Federation of Musicians (AFL), hasn't stopped telecasts. Technical unions have continued to work. KFI is substituting filmed shows. It says they get 50% more "viewership" anyway.

—enough to finance liberal benefits. It paid out, with some fanfare, \$3,224,830 to striking members of Chrysler locals; \$1,149,577 to John Deere strikers; \$833,638 to International Harvester strikers; and smaller sums to striking members of other UAW locals.

The payments in all cases were for strike benefits—not for the running expenses of big walkouts, the radio time, ads, leaflets, etc., that a union must finance.

• **Local Checks**—Such payments were bound to attract attention. Unexpectedly for UAW, the attention included that of BIR agents in several plant communities outside Detroit.

Agents dropped in on UAW local officers. They asked for "complete" records of strike benefits paid by the locals during 1950. They explained they were checking up on how much was paid out—and to whom. And they told the locals: Benefits paid should have been regarded as wages paid by the locals; a withholding tax should have been deducted from the benefits.

Local officers nervously asked UAW's international officers what they ought to do about the checkup. Most seriously doubted they could supply all information BIR wanted. They said their benefits took a lot of different forms: cash for rent and minimum living expenses; coal for strikers unable to buy it on credit; food baskets or grocery orders, and so forth.

They knew how much they spent, they said, and what it went for, but not what each individual got.

• **"Don't Worry"**—UAW Secretary-Treasurer Emil Mazey told the locals to sit tight. BIR's tax claims, he said, are "grounded in error," so locals needn't worry.

"There was no service performed," Mazey wrote the locals, "nor does there exist an employer-employee relationship. Therefore . . . withholding forms do not have to be filed by any local union. Strike relief, like other relief payments received from public welfare agencies, is not taxable income."

Mazey advised the locals that UAW would take over the dispute, try to clarify the status of strike benefits in conference with BIR in Washington.

UE Capitulates

In the union business, there's such a thing as overplaying your hand. Local 1412 of the United Electrical Radio & Machine Workers (ex-CIO) will concede that.

Local 1412 pulled its 200 members from General Electric's transformer plant in Oakland, Calif., last fall. The issue was an incentive-pay plan, accepted by unions in other GE plants.

• **Plant Abandonment**—When the union refused to budge an inch in four



At his command—the movement of a hundred trains.

DOING THINGS!

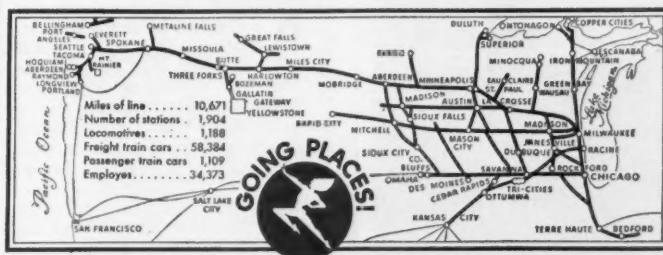
Since World War II The Milwaukee Road's been busy building for the future. Everything in the plant has been double-checked, improved or replaced.

The men at the throttle of The Milwaukee Road these days are young-minded and vigorous. They're

doing things and their Road's going places. It's geared to a fast pace.

Milwaukee Road agents are in principal cities. Ask the one nearest you about your shipping. You'll find him an experienced and forward-looking transportation man who'll say it can and will be done.

SHIP-TRAVEL

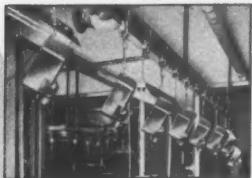


THE MILWAUKEE

ROAD ROUTE OF THE
HIAWATHAS

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD

**30 day changeover
instead of 300 days**



AUTO HEATER
MANUFACTURER
INSTALLS

Buschman

CABLE CONVEYORS

Instead of a 300 day changeover program the above Cable Conveyor system was installed and two existing chain conveyors were converted to cable in just 30 days . . . utilizing standard stock parts.

Regardless of how complicated your materials handling problem may appear, there is a BUSCHMAN Conveyor to provide a quick and simple solution. Write for bulletin 41.

THE E. W. BUSCHMAN CO., INC.
4477 Clifton Ave.
Cincinnati 32, Ohio

PRODUCE MORE FOR LESS
Buschman
Conveyors

CHRYSLER Airtemp
Air Conditioning brings
new comfort to customers,
new profit to merchants.



Chrysler Airtemp

AIR CONDITIONING • HEATING • REFRIGERATION
Airtemp Division of Chrysler Corporation
Dayton 1, Ohio

In Canada, Therm O Rite Products Ltd., Toronto

months of negotiations, GE threw in the towel in February. GE ordered the plant closed permanently, and dismantled (BW-Mar. 17 '51, p140).

The dismantling was just getting started when UE capitulated. It telegraphed an offer to accept GE's "final offer" without reservations.

• Back to Work—Last week, first of the strikers returned to their jobs. Full

resumption of work must wait for dried-up supply lines to fill again.

Meanwhile, UE sought to sugarcoat the settlement, announcing a "victory" over the company's incentive-pay "speedup" plan. UE explained that it had settled for a "production bonus plan" instead. But the only real difference between the two appeared in the wording.

THE LABOR ANGLE

Union Security: IV

ORGANIZED LABOR'S en- during campaign for union security has been the subject of three preceding Labor Angles. They have explored the background of the problem raised for management by this movement and have suggested that the issue is about to sharpen appreciably.

What we are seeing now, and what we will continue to witness, is a crude sort of collective bargaining between labor and the Administration. The unions can give—or withhold—their cooperative participation to the mobilization effort. The Administration, which wants that cooperation—and labor's friendship for political purposes—has offices, powers, and policies to dispense or withhold. The unions are bargaining for the most they can get; the Administration, which has to think of other groups and other interests with stakes in the mobilization program, is bargaining to give the least.

It is in this tugging and hauling that union security will become a trading point.

RECALL how union security was dealt with in the last war. The National War Labor Board felt a desperate need for labor cooperation in holding wage rates within established formulas and in minimizing strikes. It felt limited in what it could offer labor in wage increases. So it gave the unions maintenance-of-membership contracts. This was a very restricted form of union security—applying only to employees already union members—but it represented a greater stride down the union-security road than the award of union shop contracts would be now.

When m-of-m was ordered, there wasn't enough union security in mass production industry to be

worth talking about, while today there is hardly an industry where the unions cannot point to some important employer who has signed up for a union shop.

Thus the union-shop question will come early before any tribunal established to deal with labor disputes. If that tribunal must—as seems certain—be guided by some limiting regulations in what it can grant in wage increases, it will, like the old NLWB, look for other areas in which it can satisfy union demands.

IN PART, this explains the resistance of employer organizations to the establishment of a board that will handle disputes. Management fears that such an agency will dispense the union shop to appease the unions where it cannot comply with their wage demands. And management fears that the union shop, like m-of-m, will not be a transitory thing, disappearing when the emergency is over.

No one has seriously said that this fear is groundless. The employer organizations wrangling in Washington with Eric Johnston and Truman want the union-security question decided by management and union. They don't want the employer who is determined to fight it put into a position where he has to fight both the union and government, which through some board has ordered that the union be given what it wants.

Yet the development of such a situation is a real possibility. Even in that case, however, there are some employers who feel strongly enough about the issue to go on fighting—despite the increased odds against them. Where they are, is the place to look for the most bitter disputes and most serious strikes in the year ahead.



ILWU LEFT-WINGER Bridges, with son in Honolulu, has his critics but he's . . .

Still Top Man

Left-winger Harry Bridges keeps firm control of ILWU. Non-Red majority of longshoremen likes his leadership.

Harry Bridges, Australian-born West Coast waterfront leader, has never backed far away from Moscow-line political views. He is facing a federal jail sentence for swearing falsely that he was not a Communist when he obtained American citizenship. Yet he is the undisputed top man in the 75,000-member International Longshoremen's & Warehousemen's Union (ex-CIO). • **Ovation**—Bridges received an ovation when he opened ILWU's ninth biennial convention in Honolulu this month. Scattered opposition to his left-wing program broke down, and Bridges was renominated without opposition—along with his entire slate. Even ILWU's nominally right-wing Local 10 in San Francisco backed him.

If ILWU's rank-and-file membership was largely pro-Communist, that would explain things. But it isn't. Rank-and-filers on the Mainland (about 50,000 in number) are predominantly loyal to the United States: some 25,000 longshore, pineapple, and sugar workers in Hawaii aren't much less so.

• **Successful**—So how does Bridges consistently muster solid backing? There are two major reasons:

• As far as rank-and-filers are concerned, he is a good, tough, successful trade unionist—able to produce bread-and-butter gains for the union in contract bargaining.

Either most rank-and-filers don't

BATTERY ELECTRIC TRUCKS helped us increase production 55%



(Based on an actual case history)

We make paints and varnishes down at our plant. Business was so good we couldn't keep up with the demand! So, after looking around for a solution, we installed a battery-electric truck-and-pallet system of material handling. Here's what happened:

1. FASTER OPERATIONS—Loading and unloading of rail and highway shipments became easier and speedier. Man hour requirements were lowered substantially.

2. STORAGE SPACE FULLY UTILIZED—By tiering unit loads, we made full use of vertical storage space and consolidated all warehouse operations under one roof.

3. INVENTORY TIME REDUCED 91%—Formerly it took four men three days to take inventory. Now two men can do it in one day.

4. EASIER WORK FOR EMPLOYEES—Battery-electric trucks took away

the drudgery of material handling. Employes were happier, and many men were released to production lines, thus enabling us to take on additional work from some of our other overloaded plants.

5. SAFER, CLEANER OPERATIONS—Battery-electric industrial trucks are fume-free, virtually fire-proof, clean, quiet and easy to handle.

6. LOW-COST OPERATION—Maintenance costs have been very low. This means dependable operations . . . negligible truck down-time.

RESULT—When we were handling manually, we were hard pressed to ship as much as 800,000 pounds per week. Now with the help of battery-powered fork trucks and pallets, we ship between 1,250,000 and 1,500,000 pounds per week and think nothing of it. Roughly, we've increased production about 55%!

Records like these can be yours, too, with a proper system of material handling. You can find out how from our "Handbook of Material Handling with Industrial Trucks." Any company official may obtain a free copy by writing us on company stationery.



THE *Electric* INDUSTRIAL TRUCK ASSOCIATION
3701-A NORTH BROAD STREET · PHILADELPHIA 40, PENNA.



High Man on the Totem Pole

From the origin of Twin Disc Clutches and Hydraulic Drives on the drafting board . . . into all stages of manufacture . . . prime consideration is given to the ultimate requirement of trouble-free service in the field.

All are rated conservatively to further assure minimum maintenance requirements.

But when downtime does become necessary, the man with the wrench in his hand can devote it to repair time and not bunt-and-wait time for replacement parts . . . because Twin Disc maintains seven factory-branch parts stations, plus 56 well-stocked and strategically located parts depots.

That's why, to be sure of performance—and service—always specify Twin Disc Clutches and Hydraulic Drives.

Clutches & Hydraulic Drives



TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

BRANCHES: CLEVELAND • DALLAS • DETROIT • LOS ANGELES • NEWARK • NEW ORLEANS • SEATTLE • TULSA

care what Bridges thinks—or is—politically because they like the results he produces, or they accept as true ILWU's charges that Bridges is being "persecuted" by government and employers in an effort to break the union.

• Even if rank-and-filers didn't feel that way, Bridges' foes could hardly mobilize them against him. On the Mainland and in Hawaii, ILWU is so solidly controlled, politically, by Bridges' staff and field personnel that foes have little chance to build up strength against him. At the Honolulu convention, for instance, the scattered opposition developed no strong, central leadership.

Whatever the reasons, Bridges had easy going at Honolulu. His leadership was challenged, but not at all seriously. A minority objected to portions of the officers' report—but only polled 19 votes out of 375. A controversial resolution—for a cease-fire order in Korea and withdrawal of United Nations forces—passed 357 to 9. There were more opposition voices than votes on these and other issues. After protesting, many delegations went along with the majority for the sake of unity.

• **Dissidents**—Actually, the convention brought out a significant fact: A bloc in ILWU—larger than the votes indicate—now opposes Bridges and the leftists. It may split off from the union whenever it can do so with strong support and without forfeiting contracts now in the international union's name.

However, at Honolulu, ILWU showed general strength.

A demand for repeal of the McCarran (Internal Security) Act was passed unanimously. The small right-wing minority went along with the leftists, but not without making a floor stand.

Phil Sandrin, president of the San Francisco right-wing local, warned delegates that if there is another war it will be "communism versus capitalism." He admitted that ILWU "in the past has more or less encouraged communism—we might as well face it." Nevertheless, he said, the union's rightists must oppose the McCarran Act as an abridgement of civil rights.

• **CIO Assailed**—ILWU unanimously rapped CIO as a "decaying organization . . . party to some of the most shameful corruption in the history of American labor." It warned that anyone "who tries to interfere in our affairs . . . will find a most unpleasant welcome." It said it will continue as an independent union—but it will not stay "isolated . . . politically nor economically, either at home or abroad." It bid for "continued close working relations with the rank and file of all unions, AFL, CIO, and unaffiliated," and for support of a "militant and aggressive ally"—15-million Negro people, largely workers.

It opposed, unanimously, the Taft-

Hartley act, government wage controls, the present federal price rules, high tax rates on low-income brackets, and the military sea transportation service.

And it promised contract headaches for employers by unanimously backing a demand for 15¢ wage increases, a pension plan, and continuation of West Coast hiring halls when contracts reopen June 15. It warned it will strike, if necessary, on these issues or to force government approval of a 20¢ raise negotiated for Hawaiian stevedores last February.

• **Gilded Tour**—The convention was businesslike—and costly for the union. Two chartered airliners carried 90 delegates to Honolulu from the Mainland. About 60 more traveled on scheduled airlines, at a cost of about \$330 each for the round trip.

Only one thing was different from the traditional Hawaiian welcome to a convention. The Hawaiian Pineapple Co. didn't furnish free pineapple juice to the visitors. It said there is a shortage of fruit. An ILWU strike on Hawaiian Pine's Lanai plantation (BW—Apr. 7'51, p58) has shut off half the company's normal supply.

LABOR BRIEFS

Stock ownership by Sears, Roebuck savings and profit-sharing pension fund now amounts to 23% of outstanding stock, or 5,426,574 shares. Set up in 1916, fund now covers 104,100 employees, has a \$350,533,932 total value.

Good Friday as a paid holiday is urged as a new union demand by Catholic trade unionists in Detroit. They say 12,000 workers forfeited pay last Good Friday (Mar. 23) by staying home from Ford and Chrysler to attend services.

Union-label drive of CIO's clothing workers has upped calls for ACWA-made garments by 43% and has speeded organizing work, the union reported last week. It has spent \$455,000 in 18 months for promotional work and will spend \$500,000 more.

Shipyard jobs rose to 209,000 in February, up 40% in one year. Yards expect a further 22% rise by August, and employment topping 400,000 in 1952.



LONE PICKET urges Cone Mills' nonunion workers in Greensboro, N. C., to help as . . .

CIO's Textile Union Pushes Southern Walkout

The Textile Workers Union of America (CIO) pressed its strike of southern cotton-rayon workers this week as first cracks appeared in employer ranks. The Gold-Tex Fabrics Corp., at Rock Hill, S. C., set off a series of small settlements with a 13¢ "package" deal with TWUA—including a 10¢ raise.

The contract also contains a cost-of-living wage adjustment clause with a Feb.

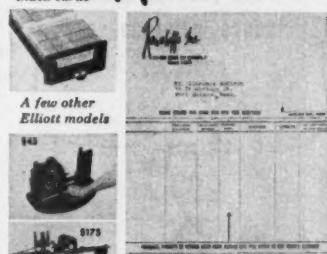
15, 1951, base date. This means the pact must be O.K.'d in Washington, since the raise exceeds the allowable 10% pay boost.

TWUA called 40,000 members in five states off jobs in 39 mills on Apr. 1. It demanded a flat 13¢ hourly raise—about 13%. Mills offered 2% at once, 4% more when the government ratifies above-formula raises. Cotton workers got an average 8% raise last year.

6000 per hour at

Ransohoffs Inc.

Elliott address cards file like index cards



Ransohoffs Inc. of San Francisco send out statements each month to the highest class of trade on the Pacific Coast.

This Elliott Model G-EW Addressing Machine automatically feeds these and addresses them at a speed of 6,000 per hour.



Prior to installing the Elliott Addressing Machine, Ransohoffs Inc. used another make of addressing machine to which the monthly statements were hand fed at a much slower speed.

The Ransohoffs Inc. monthly statement is similar in size and form to the monthly statement used by all retail department stores.

Elliott ADDRESSING MACHINE CO.

151-D Albany Street, Cambridge 39, Mass.

Yes, we've found that
PC GLASS BLOCKS
 help increase production,
 improve product quality,
 reduce maintenance
 costs...



PC GLASS BLOCKS can be used to replace old, uneconomical windows, as in this Meadow Gold Products Corp. building, Brooklyn, N.Y. The entire job can be done at once, or extended over a period of time.

► PC Glass Blocks have valuable protective and insulating features, as well as downright economy benefits. For example, they have more than twice the insulating value of ordinary, single-glazed windows. This helps to prevent heat losses, makes the air-conditioning equipment more efficient. They seldom require repairs; there's no need for periodic sash puttying and painting.

And PC Functional Glass Blocks, with their special surface patterns, internal prisms and fibrous glass screens, diffuse and direct the daylight they admit. Thus, they condition the natural light for critical seeing tasks, make daylight equally available for all task areas.

Let our specialists help you with your new-building or sash modernization programs. And, for complete information on the use of PC Glass Blocks in industrial, commercial and public buildings, fill in and return the coupon.



Pittsburgh Corning Corporation
 Dept. M-51, 307 Fourth Avenue
 Pittsburgh 22, Pa.
 Without obligation on my part, please send me a FREE copy of your booklet on the use of PC Glass Blocks in industrial, commercial and public buildings.

Name
 Address
 City State



GLASS BLOCKS
The mark of a modern building

Distributed by Pittsburgh Plate Glass Company; by W. P. Fuller & Co. on the Pacific Coast, and by Hobbs Glass Ltd. in Canada.

TAXES

Ceiling Pitfalls

Too-high wage boosts and over-limit prices can't be deducted from your income tax—unless . . .

Business is back in war harness again; as far as income tax deductions are concerned the harness looks more like a straitjacket. Violations of price ceilings or Wage Stabilization Board rules—whether committed in ignorance or defiance—can cost businessmen plenty of money.

What's more, there's a powerful tool for enforcement: When the Bureau of Internal Revenue combs over income tax returns, it can refuse to let you deduct payments made in violation of the rules.

I. Movable Lid on Wages

WSB regulations don't forbid all wage boosts; but they do set very stringent rules for them. Mostly, you have to get WSB permission in advance. Violations are expensive. It's not just that you can't deduct as a cost of doing business the part of wages paid over the ceiling. If you pay a worker too much, under World War II precedents, you can't even deduct the part of his wages that lies under the ceiling.

Suppose a company, which is paying 77% excess profits tax, does get approval for a wage boost. For every \$1,000 of higher pay, it gets a tax saving of \$770. A raise of \$1,000 actually costs the company only \$230.

Now suppose the company had not secured WSB approval. For every \$1,000 of total payroll involved (which might easily be 10 times the raise in question), it loses that much deduction, pays \$770 more tax, in addition to the cost of the pay increase.

Any pay boost can imperil your wage-cost deductions if it does not follow WSB Regulation 6. That rule gives blanket permission for increases up to 10% of the levels existing on Jan. 15, 1950. Any increases granted between that date and the time of a proposed new change are chargeable against the 10%.

One other general category of raises is still tax deductible. It includes merit, length-of-service, and promotion increases, providing they are arrived at by one of two broad methods:

- **Written Program**—If a formal plan—such as a union contract or a written job evaluation setup—was in existence

Johnny Careful...

**PERFECT
SHIPPING
BOSS**

on the M. & St. L.



HE CALLS himself John B. Careful now, with a stenographer, desk and his own "Agency for Prevention of Loss and Damage." But he's the same Johnny Careful who has been full-time boss for so many years on

The Minneapolis & St. Louis Railway

Johnny Careful tracks down Loss and Damage Claims and the mishaps that cause them. Also, he presides each April over America's celebration of Perfect Shipping Month. In April, Shippers and Railroads take stock of progress toward the goal of completely efficient freight handling.

But nowadays, every month the year round, industry and the workers who pack, label and load freight demonstrate greater efficiency. Railroads, with constantly improved equipment, provide the finest transportation ever known.

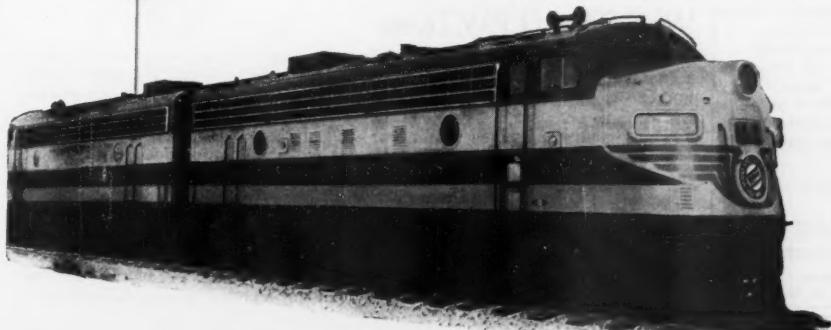
Perfect Shipping Month

is celebrated 12 times a year on the M. & St. L., with Johnny Careful in charge. In the Great Midwest, M. & St. L. freight service for Shippers and Receivers, for Agriculture and Industry, for Connecting Roads, is as nearly perfect as teamwork of skilled workers can make it. Helping also are growing fleets of modern cars and locomotives, with Diesels now powering all trains.



The MINNEAPOLIS & ST. LOUIS Railway

TRAFFIC OFFICES IN 36 KEY CITIES





The key to efficient manufacturing is scientific cleaning. And the key to scientific cleaning is **Kelite**.

Kelite offers the most advanced and complete line of Industrial Cleaning and Processing Chemicals.

Kelite Products are available coast to coast. Service offices in principal cities.



Keller DESIGNS ENGINEERS and



FABRICATES



Plastic reinforced cloth instrument housings.



Railway car structural member.



Metal faced sandwich board of dissimilar materials.

molded plywood . . . from very light to heavy gauge shapes in nearly any practical size, gauge and veneer — metal shortage problems solved with molded plywood.

Write, wire or phone —

Keller
PRODUCTS, INC.
42 Union Street
Manchester, N.H.

on Jan. 25, 1951, a company can give such raises without WSB approval. Merit and length-of-service boosts are O.K. if: (1) The plan existed in written form; (2) if it contained rate ranges and job classifications with clear maximums; (3) if it provided specific amounts or percentages for raises; or (4) if it arrived at such raises by a special averaging system.

When no plan existed on Jan. 25, tax-deductible increases can be given only with careful attention to timing, number of increases per month, and the amounts. It's nice business for accountants.

- An employee cannot be given a raise till 12 months after his last previous merit or length-of-service boost.

- The number of increases is governed by a formula based on the company's 1950 experience.

- The amount of a raise is also limited by the firm's 1950 experience.

- **Bond Bonuses**—Accountants keep reminding business that in World War II

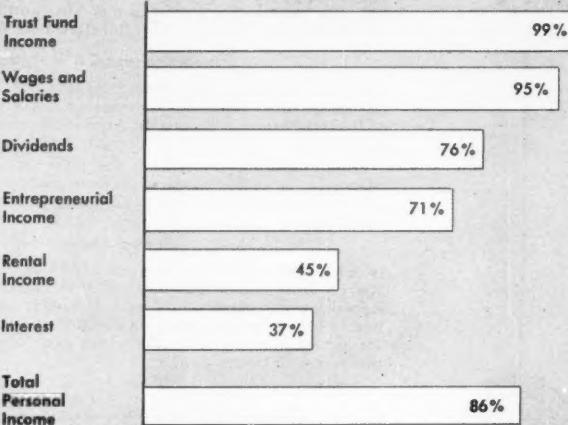
many efforts to avoid the freeze were eventually disallowed by the BIR. Particular examples were payment of bonuses in U.S. savings bonds, instead of cash; payment before approval on the strength of some sort of government application; paying for a longer work week than the employee had actually served.

A vast number of employers do not have the written plans called for by WSB. Their difficulty is serious now, but it may be eased. Experts believe that eventually WSB will return to World War II procedure. Under it, written policy statements could be filed; if they were approved, they provided a yardstick for merit and length of service increases, promotions, transfers, rates for new jobs, and for new hiring.

II. Over-Ceiling Prices

Price ceilings create another series of tax pitfalls for the employer. Suppose you buy merchandise for resale at over-

U.S. citizens report only this much of the money they make to the tax collector:



Data: National Bureau of Economic Research; Figures are for 1946.

© BUSINESS WEEK

Who Doesn't Pay Taxes

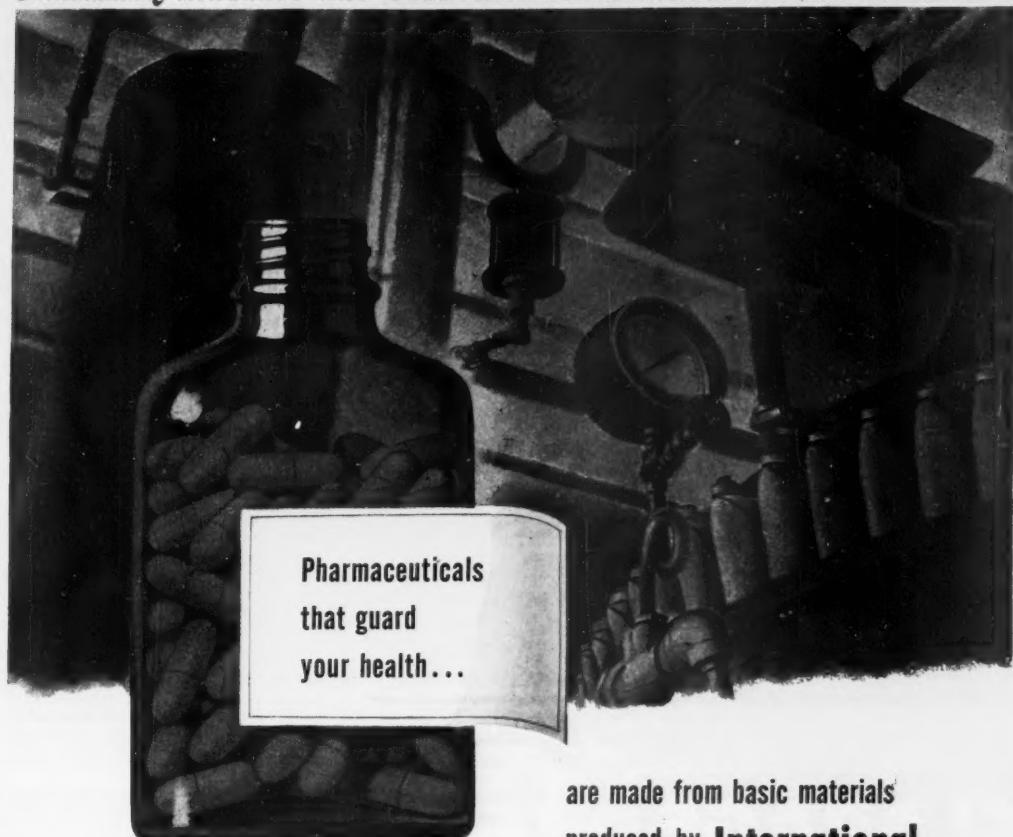
Nothing is certain except death and taxes, so the old saying goes. But for a number of Americans even taxes are not certain.

The amount of income that ducks taxes corresponds to the ease of hiding income from the tax collector. On wages and salaries, almost all earnings are recorded by employers; usually the employer withholds the tax. And so it's easy for the government to check up. Hence few people dare to understate the sums on the withholding forms.

At the other extreme, interest payments mostly come in rather small amounts and from numerous places. So people conveniently "forget" to include them in tax returns. The two-thirds of interest income that is not reported amounts to approximately \$2-billion.

Over-all, during 1946 some \$20-billion was received but not reported. If the same ratios hold, the present higher incomes will boost the amount received but not reported to over \$27-billion.

International MINERALS AND CHEMICALS SERVE INDUSTRY AND AGRICULTURE



are made from basic materials
produced by **International**

Here's to your good health . . . and here's a reason for it! In an era of unprecedented scientific progress, the remarkable growth of modern drug therapy is an outstanding achievement. The research development and mass production of new pharmaceuticals have contributed enormously to the improvement in the health and well-being of millions.

International is a major producer of certain essential *Amino Acids* which are becoming increasingly important in the manufacture of modern pharmaceuticals.

Phosphate, potash and potassium chloride, produced by *International*, are base materials used by the chemical industry in compounding a great variety of chemicals used in the manufacture of drugs and medicines.

In addition to supplying raw materials that are required in the manufacture of pharmaceuticals that safeguard your health, *International* produces mineral plant foods which enable the farmer to grow larger quantities of quality foods that are rich in nutritious, body-building elements.



INTERNATIONAL  **MINERALS & CHEMICAL CORPORATION**

General Offices: 20 North Wacker Drive, Chicago 6

Protecting YOUR BUSINESS with Life Insurance

Many successful businesses have been confronted with serious problems because of the death of one or more partners, owners or other executives. Well planned life insurance protection can help you to solve this contingency.

Write on your business letterhead for a copy of our brochure "Planning a Sound Business Life Insurance Program For Your Company."



MARSH & McLENNAN

INCORPORATED
INSURANCE BROKERS • CONSULTING ACTUARIES

Chicago New York San Francisco Minneapolis Detroit Boston Los Angeles Pittsburgh
Seattle St. Louis St. Paul Duluth Indianapolis Portland Superior Cleveland
Buffalo Columbus Phoenix Vancouver Toronto Montreal Havana London

CLARAGE
...Headquarters
FOR AIR HANDLING AND
CONDITIONING EQUIPMENT

MEET OUR
APPLICATION EXPERTS
In Massachusetts
and Connecticut

BOSTON — E. W. Erlanson
Co., 31 Main St., Cambridge,
Mass.; E. W. Erlanson

HARTFORD—Clarage Fan Co.,
965 Farmington Ave., West Hartford, Conn.; A. L. Ols

Also Application Engineering Offices in All Other Principal American Cities

A Capable
Nation-Wide Service

Take any type of air handling or conditioning requirement, and it makes SENSE to call in the nearest Clarage Application Engineer. This man KNOWS his business — can give you expert assistance. And back of his recommendations are engineering resources and manufacturing skills unsurpassed in the fan industry. Try Clarage for satisfactory results invariably accomplished MORE economically.

CLARAGE FAN COMPANY, Kalamazoo, Michigan

MECHANICAL DRAFT

INDUSTRIAL AIR CONDITIONING

FACTORY AND SPACE HEATING

AIR FOR INDUSTRY

ceiling prices. Can the excess be deducted as a legitimate part of inventory? Yes, says the U.S. Tax Court, despite continuing government protests to this practice during the course of World War II. Of course, including the over-ceiling margin in inventory means lower taxes.

Example: Sullenger, a Texas meat retailer, paid prices above OPA levels to his wholesalers in 1944 and 1945. BIR refused to allow Sullenger to deduct the overage from his gross receipts. But the Tax Court overruled BIR, holding that the overpayments were a legitimate factor in determining the cost of goods sold, that cost-of-goods is not a "deduction" under the law, and that, therefore, BIR had no right to exclude it. (Sullenger, 11 T.C. 1076)

Dues Ruled Out—Here's an odd quirk, though. If an association, cooperative, or such group has been set up to bypass ceilings, you are not allowed to deduct any dues that you have paid to it.

Example: A butcher in 1944 paid \$2,000 dues to a cooperative set up to absorb OPA judgments against its members (the co-op paid out some \$100,000). The Tax Court ruled against the butcher when he sought to deduct the dues. (Fairman, T.C. Memo. Op. 1949)

Who Gets Fines?—When there was a price violation under the old law, the customer would sue the seller for the overage. And the seller was allowed to deduct whatever payments he made in settlement. (I.T. 3627, Cum. Bull. 1943, p. 111.)

However, the seller cannot deduct any payment made to the government as damages or fine. That goes even if the payment was made on the mere threat of a suit.

Example: Scioto Provision Co. overcharged for its hamburgers to the tune of \$9,309 above OPA limits. Faced with the possibility of a suit for treble damages if it didn't pay up, Scioto finally settled for a \$7,709 payment to OPA. The Treasury ruled that these payments to the government were to avoid the penalty of a fine, hence could not be deducted. (Scioto, 9 T.C. 349)

Honest Errors—Sometimes, a deduction is allowed on repayments to the government after an honest mistake in overcharging.

Example: In 1943 the Rossman Co., a textile converter, discovered it had exceeded ceiling prices because it relied on shrinkage figures given by outside finishers. Rossman went voluntarily for advice to OPA, which was not investigating. It was impracticable to refund the overcharge, so OPA agreed to let Rossman pay the whole amount to the U.S. The Tax Court refused to let Rossman deduct the sum, but a higher court reversed it. The higher court said OPA could adjust deserving cases of innocent violations. (Rossman, 175 Fed. 2d 711; National Brassworks, Inc., 182 Fed. 2d 526)



Only STEEL
can do so many
jobs so well...

DOME OF STEEL. This pattern against the sky is formed by sturdy ribs of steel in the roof structure for a column-free building in Texas. Fabricated and erected by United States Steel, the domed unit rests on ball and socket bases. United States Steel supplies steel for everything from churches to chicken houses, skyscrapers to steam plants, bridges to boats.

**FACTS YOU SHOULD KNOW
ABOUT STEEL**

Today, United States Steel and the more than two hundred other American steel companies can make 11 million more tons of steel annually than in 1944—which was the peak steel-producing year of World War II.



7 YEARS IN THE ANTARCTIC. Exposure to years of sub-zero temperatures had little effect upon the operation of two dielectric plants made by Witte Engine Works, now part of U.S. Steel. Originally taken to Palmer Land by the Byrd Expedition, they also provided light and power to the Ronne Expedition seven years later!



28,000-POUND BOMB LOAD. The new B-50 is now equipped with two huge auxiliary fuel tanks that extend the plane's range considerably. Such aircraft require large quantities of steel . . . and because U.S. Steel has such large capacity, it can supply steel for mobilization "musts," as well as for essential peace-time products.



and this label is your guide to quality steel . . .

UNITED STATES STEEL

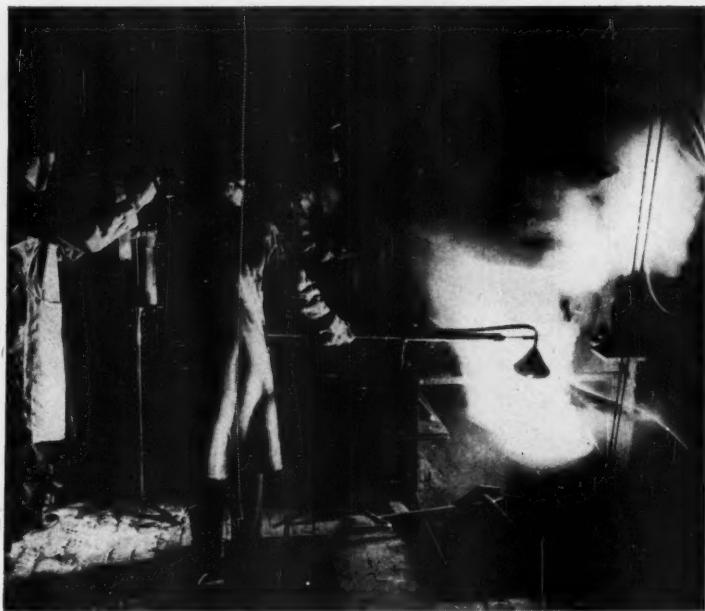
Helping to Build a Better America

AMERICAN BRIDGE COMPANY • AMERICAN STEEL & WIRE COMPANY and CYCLONE FENCE DIVISION • COLUMBIA STEEL COMPANY • CONSOLIDATED WESTERN STEEL CORPORATION • GERRARD STEEL STRAPPING COMPANY
GUNNISON HOMES, INC. • NATIONAL TUBE COMPANY • OIL WELL SUPPLY COMPANY • TENNESSEE COAL, IRON & RAILROAD COMPANY • UNION SUPPLY COMPANY • UNITED STATES STEEL COMPANY
UNITED STATES STEEL EXPORT COMPANY • UNITED STATES STEEL PRODUCTS COMPANY • UNITED STATES STEEL SUPPLY COMPANY • UNIVERSAL ATLAS CEMENT COMPANY • VIRGINIA BRIDGE COMPANY

It pays to defense do business in New York State

Nearness to subcontractors and suppliers is a boon to manufacturers holding prime defense contracts. The Empire State puts a multitude of processed and semi-processed materials plus all forms of manufacturing equipment at your front door. Detailed information on the production facilities of 2,000 plants engaged in various metal-working operations is also on file in Albany and readily available. For help in solving your defense-production problems, write: N. Y. State Dept. of Commerce, Room 202, 112 State St., Albany 7, N. Y.

PRODUCTION



ISOTOPES make versatile tracers. Here Ford Motor Co. takes a gas sample from molten steel—plus a pinch of radioactive matter. It's handy for quality control.

Atomic Byproducts for Sale:

In these days when just about every material is becoming scarcer and scarcer, there is one group of products that is plentiful and then some. If you can find a use for radioactive fission products, you needn't worry about supply. The Atomic Energy Commission has the byproducts of plutonium processing running out its ears.

• **Sales Drive**—What's more, AEC wants to put the radioactive wastes to work. It has already launched a low-pressure campaign to convince industry that it is passing up something really hot.

AEC's byproducts are "made" at the Hanford (Wash.) Works, where uranium is processed into plutonium for A-bombs. After the plutonium is extracted a hodge-podge of radioactive elements is left over—strontium 89, cesium 137, and yttrium 91 are among the more significant. These wastes are stored in underground tanks. They will have to be disposed of some day—a nasty job. Hence, AEC's sales drive to find a useful home for some of the surplus.

• **Made-to-Order Isotopes**—AEC has another type of product for sale. Ever

since 1946, it has been supplying radioactive isotopes for use in industrial, medical, biological, and agricultural research. The great bulk of these isotopes have been tailor-made jobs; only a tiny fraction comes from the radioactive wastes.

Essentially, the isotopes serve as tracers. You introduce a tiny amount of isotope into a given material; then you can trace the progress of the material, say, through a body, or a growing plant, or a chemical process.

• **Wider Field**—Even if the proportion of isotopes made from radioactive wastes greatly increases, it will scarcely dent the available supply. But AEC sees other, and potentially much wider, industrial uses for its radioactive wastes. Some look highly attractive at first blush, but all are highly speculative. Here are a few of them:

• Radiation liberates molecules so that they can recombine into new chemicals; hence, it could be used to trigger reactions that now require costly specialty chemicals. It might stimulate polymerization, in which molecules are joined in a long line to make a new chemical. Ethylene, a

*
**QUANTITY
PRODUCTION
OF
GREY IRON
CASTINGS**
*

ONE OF THE
NATION'S LARGEST
AND MOST MODERN
PRODUCTION
FOUNDRIES
*

ESTABLISHED 1866

**THE WHELAND
COMPANY**

CHATTANOOGA 2, TENN.



BOUNDARY between different oils in a pipeline is marked by isotope.

Just Call AEC

common gas, is polymerized to make polyethylene. Radiation might be used to spark the process of making compounds of the halogens, like chlorine, bromine, iodine, and fluorine.

• Radioactive particles ionize liquid and gas molecules so that they will conduct electricity. So nuclear scientists believe they may be used to blanket static electricity. Such static eliminators could help wherever nonconducting, swift-moving materials build up a static charge, as in textile weaving and spinning and in paper making. They could ease the static buildup in the grinding of materials like cement, flour, pigments, and dyes. Explosion hazards would be reduced if radioactive eliminators bled off the static charges.

• Radiation provides the stimulation needed to make phosphors glow in the dark. Such luminescent phosphors would be a permanent, cheap source of light, useful for tiles, paint, billboards, highway markers, and house numbers. The hitch is to find a way to protect users from the dangers of radioactivity.

• The danger factor—the lethal effect of radiation on living organism—



IT'S TIME FOR

Extra-value
CRANES

With the tempo of defense production speeding up, the need for extra-value cranes — "Shaw-Box" Cranes — again comes into sharp focus.

From load hook to end trucks, every "Shaw-Box" Crane gives you extra value. For only an organization that engineers and builds load-handling equipment exclusively can supply cranes with all these essential qualities: complete dependability . . . enduring stamina . . . low-cost operation and maintenance . . . all-around safety for man, load and crane.

Whether you modernize existing facilities, add a new production area or plan an entirely new plant, there are extra-value "Shaw-Box" Cranes to help you produce more at lower cost. From 500-lb. cranes to giants that lift 300 tons or more, "Shaw-Box" makes them all — in types and sizes for every need.

The true measure of value of any crane is its long-term efficiency and economy. Invest in a "Shaw-Box" Crane for the extra value that assures top performance over the years.

Write for Catalog No. 217 showing "Shaw-Box" Full Electric Traveling Cranes from 5 tons capacity up; Catalog No. 218 for "Load-Lifter" Cranes from 1 to 25 tons.



SHAW-BOX CRANES

MANNING, MAXWELL & MOORE, INC. Muskegon, Michigan

Builders of "Shaw-Box" Cranes, "Budgit" and "Load Lifter" Hoists and other lifting specialties. Makers of "Ashcroft" Gauges, "Hancock" Valves, "Consolidated" Safety and Relief Valves, "American" Industrial and "Microsen" Electrical Instruments.



NEW SCRUBBER-VAC

Cuts Cleaning Time $\frac{2}{3}$

FOR SMALL-AREA BUILDINGS



Now the labor-saving advantages of combination-machine-scrubbing are available to small as well as larger buildings. The new 418P Finnell Scrubber-Vac cleans floors in approximately one-third the time required with a conventional 15 or 18-inch polisher-scrubber using separate equipment for picking up. A Finnell Scrubber-Vac speeds cleaning by handling four operations in one! It applies the cleanser, scrubs, rinses if required, and picks up (damp-dries the floor) — all in a single operation.

All the refinements of Finnell's larger combination machines are embodied in the new smaller unit, No. 418P, which has an 18-inch brush ring. Vacuum performs quietly. The machine is self-propelled — operator merely guides it.

SEE IT IN ACTION ON YOUR OWN FLOORS!

Find out what you would save with a *Finnell Scrubber-Vac*. *Finnell* makes several models and sizes. Incidentally, it's good to know that when you choose *Finnell Equipment*, a *Finnell* man is readily available to help train your maintenance operators in its proper use. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 3804 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Pioneers and Specialists in
FLOOR MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

has a useful side. It can be turned to sterilization and pasteurization (BW—Apr. '51, p81). Research at Massachusetts Institute of Technology has shown that a pound of material, food, or pharmaceutical can be sterilized by roughly 100 curies of radiation. (A curie is the standard measure of radiation.)

• **Cheapness**—One great argument for the use of radioactive wastes is their cheapness. The isotopes sold by AEC at present are mostly special jobs turned out at Oak Ridge by bombarding normally stable materials with neutrons in the nuclear reactor. Current prices are high: One-thousandth of a curie costs \$1.10 for phosphorous 32; \$36 for carbon 14; \$1 for iodine 131.

Compare this with the estimated costs for radioactive wastes. Unrefined products would run from 10¢ to \$1 per curie; refined products might range from \$1 to \$100 per curie.

• **Education**—AEC has literally billions of curies piling up in its Hanford storage tanks. To dispose of them and to pass the isotope business over to private industry, it is trying an educational campaign. The first step in this program was to arrange for the Stanford Research Institute to give industry a brief indoctrination course on isotopes and fission products, via a booklet, *The Industrial Utilization of Fission Products*.

The booklet was first distributed to some 500 companies. Next, a three-man team from SRI began making followup calls, getting the reaction of industry and helping to make cost estimates. P. J. Lovewell, boss of the SRI project, describes their method this way. "We don't go to industry and say: 'We have something to sell. Do you want to buy it?' Instead, we say: 'We can make various things. Which one do you think you might be able to use?'"

AEC will know a lot more about the possibilities for fission products after the SRI survey is completed. Meanwhile, it is not neglecting the less glamorous, smaller-scale uses of isotopes.

• **Training Course**—At Oak Ridge, AEC offers a month's course to train technicians in handling hot isotopes. Another effort to spread the word came at Case Institute of Technology in Cleveland this month, when over 100 engineers and scientists from industry and research labs gathered to find out how to put radioactivity to work. And AEC is always ready to give expert consultation if you want to set up a radioisotopes lab.

Lack of trained technicians is a big handicap to the wider use of radioactive products. The field of radioactive wastes has very little personnel. And even on the more familiar isotopes, industrial experts are more rare than men

**Wherever materials
are compared**

micarta is basic!



DECORATIVE USES

In homes, restaurants, hospitals, offices . . . wherever beauty must last . . . you'll find decorative MICARTA. This tested material, available in dozens of colors and patterns, combines utility with smart appearance. Another way in which MICARTA is doing important jobs better. Can you find a place for it?

MICARTA® welcomes comparison with other basic materials. It is a versatile plastic lighter than aluminum. Pound for pound it has greater compressive strength than structural steel. When properly applied it outlasts metal in dozens of punishing applications.

MICARTA takes many shapes. It can be fabricated to micro-fractions of an inch . . . machined, formed or molded easier and more economically than any metal.

MICARTA resists heat and cold. It won't chip, splinter, or corrode. MICARTA is serving every industry . . . paying its way with a wide range of valuable qualities.

Explore this versatile basic material for your applications. Westinghouse Electric Corporation, MICARTA Division, Trafford, Pennsylvania.

J-06449



These manufacturers are typical of the many who take advantage of Hackney design and production facilities... to add to the efficiency and salability of their products. Here are some of the advantages Hackney Deep Drawn Shapes and Shells give them: greater strength, decreased overall weight, improved appearance, elimination of expensive machining operations, faster production and greater durability.

The Hackney Process

This special Hackney method consists of hot or cold cupping from flat circular sheets of metal, cold drawing where it is necessary to

obtain desired diameter and wall thickness. Then, to assure the required physical characteristics, the finished product is special heat treated. Uniform sidewall thickness and a smooth surface finish are assured by careful control of tolerances of the mandrels and dies.

Made to Your Specifications

Hackney Deep Drawn Shapes and Shells are made to your specifications by a company that has specialized in deep drawing for almost 50 years. Send us a sketch of your part and see if this experience can help you improve existing products—or develop new products. Write us today.



PRESSED STEEL TANK COMPANY

Manufacturer of Hackney Products

1493 South 66th St., Milwaukee 14 • 207 Hanna Bldg., Cleveland 15
1397 Vanderbilt Concourse Bldg., New York 17 • 936 W. Peachtree St., N.W., Room 115, Atlanta 3
208 S. LaSalle St., Room 789, Chicago 4 • 555 Roosevelt Bldg., Los Angeles 14

CONTAINERS FOR GASES, LIQUIDS AND SOLIDS

in the medical and biological fields. That's because the Atomic Energy Act gave priority to the latter.

• **Isotope Uses**—AEC believes that, for the present, the made-to-order isotopes offer the most fertile field for selling its products to industry. Despite the shortage of technicians, 150 industrial groups bought isotopes in 1950. That was a 50% gain over 1949.

As a bait for added use of isotopes, AEC no longer requires users to publish the results of their investigations. Still, its selling job is strictly low pressure. Dr. Paul C. Aebersold, chief of the isotopes division, urges companies to be sure that isotopes can do their job cheaper, better, and faster. And he warns them that they'll have to learn to live with stringent safety precautions.

Paradoxically, AEC is just as anxious to get itself out of the isotopes business as it is to encourage their use. It's making progress in that direction, too:

- At least five companies and several research institutions are now marketing isotopes—some of them compounds not available from AEC.

- North Carolina State College is building its own low-power nuclear reactor, for which AEC will supply fissionable material. Designed mainly for research, it will also be able to produce some isotopes.

- AEC is now discussing a Bendix Aviation Corp. proposal for a privately financed study of a nuclear reactor. The aim: to find out if isotopes could be produced on a profitable commercial basis.

Current uses of isotopes are almost entirely as tracers. Put a pinch of it on any stable material, and instrument needles start fluttering. Few brand-new uses are being developed, but new twists on old techniques are frequent.

- **Laundries**—Bell Telephone Laboratories use radio-strontium to study the penetration of preservatives in telephone poles. Longer-lived poles are the goal. The University of Michigan is using radio-phosphorus to study laundering techniques. Bacteria, fed with the stuff, are mixed with soil and smeared on cloth. The cloth is Geiger-counted after being washed.

Rutgers researchers use isotopes to measure soil density—they can spot damage under highways, test building sites. Ford Motor Co. uses them for quality control in steel making. And radioisotopes make nice markers for liquids flowing through a pipe. California Research Corp. uses them to mark the boundary between different types of oil following each other through a pipeline.

Quebec North Shore Paper Co. uses radioactive iodine to see how pulp solutions and materials work together at each mixture stage in making newsprint.



A TYPICAL REMINGTON RAND PUNCHED-CARD INSTALLATION

Just ONE Punched Card for payroll plus

As a by-product of their punched-card payroll system, the Greenfield Tap and Die Corporation controls production efficiency and holds down rework and spoilage costs!

The same basic job card that prepares their payroll is used for automatic compilation of Cost figures and Labor Distribution. Inspection rejections are known to management daily, and as a result, preventive measures may be exercised during production rather than after completion of jobs.

This is just one example of how you can cash in on the multiple-use potential of Remington Rand Punched-Card Machines. Your clerical saving on payroll alone may very well pay for the many extra facts, figures and summaries your business needs to cope with current conditions. Ask our local office about new "Use-Purchase Plan"—the best and most liberal punched-card offer ever made—bar none!

*cost accounting
labor distribution
quality control*

*Free Payroll Folder (TM598A)
illustrates several different
punched-card methods for
handling cash or check payroll
... easily, economically. Phone
our nearest office or write Man-
agement Controls Reference
Library, Room 1002, 315
Fourth Avenue, New York 10,
New York.*





SKETCH of design is studied and approved by dress designer Josette Walker (right).



FINISHED FABRICS are examined by company stylist, turned over to designer.



GLAMOR ADS in fashion magazines will create a feminine yen for Dan River cottons.

Dan River Mass-Produces High Style

Textiles have gone a long way since rayon first left silk holding the cocoon. But if you study the record, you'll find that most textile companies have let somebody else do the heavy work—chemical companies, for instance, have developed most of the synthetics.

Not so with Dan River Mills. Back in 1941 the company decided to start thinking for itself; it wanted to weave some of its own ideas.

As a result, the big Danville (Va.) company has become one of the top producers of high-style quality fabrics on a mass production basis. It uses top-name designers to glamorize its goods in \$50 dresses for the carriage trade, later turns its thousands of looms loose to weave the same style materials for the \$10 mass dress market.

• **Newton Takes Over**—At the helm is Southern born and educated (Georgia Tech) Russell B. Newton. He came to Dan River in 1941 from Bibb Mfg. Co., where he made his mark by developing a strong cotton cord that doubled the life of auto and truck tires (and put Bibb way ahead of its competitors). In 1942, as part of Dan River's new management, he moved up to manufacturing vice-president; he became executive vice-president in 1949. Later that year he replaced his boss, George S. Harris (now board chairman), as president.

Since Newton arrived, Dan River has changed from an old-line Dixie mill (one of the biggest) turning out huge quantities of staple goods into a fast-stepping organization with hundreds of fabric styles, both cotton and rayon.

"We've taken country-store gingham out of the kitchen, put them in the parlor," is one of Newton's pet phrases.

• **Revolution in Cotton**—But Dan River has not only changed style—it's changed cotton. In 10 years it has:

- Installed a company-developed, electronic-controlled system for finishing its fabrics.

- Worked closely with the new synthetics like Orlon. (It was one of the early leaders in rayon suitings for men and women.)

- Developed its own new products using cotton as a base.

- **New Processes Are Used**—Dan River's work on cotton is now paying off. Already on the market is Wrinkl-shed, a resin-impregnated cotton fabric that does pretty much what the name says. Cotton, because of its molecular structure, hasn't got the resiliency of synthetics or 'wool'; wrinkles don't hang out. By adding resins, cotton molecules are tied together, giving the fiber a wool-like snapback.

Wrinkl-shed is now being plugged in glamor magazines. Competing fabrics are on the market, too (with the chemical companies again doing most of the spade work), but Dan River thinks it has taken a big step forward. For one thing, Dan River bills its Wrinkl-shed as practically permanent.

For another, it has a process up its sleeve that will be announced in about six months. The process does to cotton what the ordinary resin does, but there's a difference, says Dan River. The new process is supposed to change

the basic structure of the cotton fiber itself. (It probably can get an argument on this from chemical companies; their researchers think that's what all resins will do, but they aren't absolutely sure.)

- **Cotton vs. Synthetics**—However, Dan River is certain it has solved one of the first problems it set for itself 10 years ago—to make cotton good enough to compete with anything test tubes produce.

To do the job, the company set up a research unit in 1942. It moved into its own building in 1945, and this year the department will have what Dan River thinks is the first fiber-to-fabric pilot plant in the industry. It converts the raw cotton into a finished product and can be used to turn out small yardage lots for market testing.

In addition, ground has been broken for a new finishing plant that will handle output of the company's as yet unnamed "new cotton."

- **Licks Financial Problems**—In 1941 Dan River was about ready to fold. Working capital was down to \$7-million on \$37-million sales. Profits were 2% of sales. To sell its goods, the company relied on outsiders to create demand, then got what business it could by mass-producing big yardage that eventually would fill up the pipelines. Its plant was run down; research was just a word.

During the war the company marked time, plowing what profits it could back into the business for new equipment. By 1946 it was ready to horn in on the postwar textile boom, pro-



END PRODUCT appears in stores. Prices range from \$10 budget dresses to \$80 originals.

moting its multiple-style fabric line. Working capital almost doubled in a year; 1948 sales hit a peak of \$103-million. The Dan River label on quality cottons became well-known.

But it also had its troubles. Selling had been easy. So in 1949 it took a blow that would have meant curtains back in 1941. Volume was almost halved (to \$64-million); profits dropped from \$15-million to \$3-million. Other companies were hard hit, too. Some of the old-timers, reprieved by the war, folded.

Instead of running for cover, Dan River continued to improve its plant. In the middle of the '49 setback, it spent \$2.8-million. (This year it has budgeted \$3.5-million for improvements, for a \$20-million postwar total.)

Then, by quickly reshuffling sales and

advertising personnel, Dan River was able to bounce back. Its 1950 earnings hit \$7-million, sales \$88-million. Korea helped a lot, but the company probably owed most of its comeback to the groundwork laid 10 years ago.

• **Smooth Sailing Ahead**—When the next slump comes, Dan River hopes its new developments will flatten out the curve. Instead of waiting for demand to pick up, Dan River should be able to create demand.

Newton and his management team relish the idea that Dan River, with its new research facilities, can become a small-scale du Pont of the cotton industry.

They've already started working on new problems. One of them is how to make a cotton that has the bulk—and warmth—of wool.



Whether your products' components are held to tolerances of ".2", ".002", or ".000002", these simple instruments will remove the human element from many processes in your plant. DYNAMYKE gives you automatic precision inspection on the machine; DYNAMETER teams up with it to give you acceptance or rejection—and instant action without human aid! These portable instruments not only eliminate scrap at the source, they shut down machines, make a record, make adjustments, retract tools, signal—any one or all of these—automatically, accurately, in one one-thousandth of a second!

The DYNAMYKE and DYNAMETER can point the way to tremendous savings in man-power and scrap reduction at the source through electronic measurement and control of many basic engineering phenomena. Your manufacturing problems usually involve one or more of these—force, torque, strain, vibration, acceleration, temperature, pressure, rate of flow, thickness, surface finish, etc. To many of these problems, the instant, infallible quality control provided by these instruments is the solution. Write for complete information and suggested applications. For technical specifications, ask for Bulletins T-129 and T-134.

Custom Builders of Electronic Instruments Since 1943

**INDUSTRIAL
ELECTRONICS,
INCORPORATED**
8070 Wheeler St., Detroit 10, Mich.



AIR CONDITIONING

*Pays for Itself
Pays Dividends*

Wherever people gather to produce or spend, wherever products are manufactured or sold...conditioned air can become a profit earning investment by its many contributions to production, service and business income.



MODEL
BAC 30-1
Self contained
room type
Brunner Air
Conditioner.
Available in
4 sizes from
3 to 10 HP.



AIR CONDITIONERS are at once attractive, compact, quiet, dependable and fully automatic in control of room temperatures and humidity. As the unit is completely self contained installation is quick and simple.

Before installing air conditioning look and compare. See and know why a Brunner Air Conditioner is today's top buy in conditioned air for your business.

Use this Coupon...

for useful, informative, illustrated literature that tells the "why and how" of air conditioning by Brunner.

Name _____

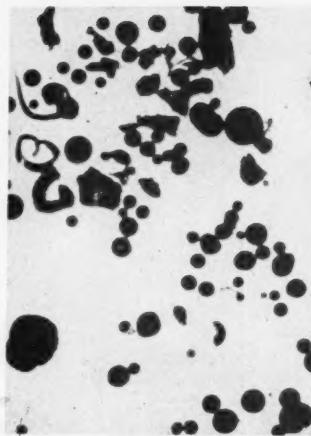
Company _____

Address _____

City _____ State _____

BRUNNER MANUFACTURING CO.
Utica 1, New York, U.S.A.

Also manufacturers of Remote Type Air Conditioning from 3 to 75 HP., Refrigeration Condensing Units from $\frac{1}{2}$ to 75 HP., Air Compressors from $\frac{1}{2}$ to 15 HP.



OLD: Round chips show that old contact wheel let abrasive belt become glazed.



NEW: With "61" wheel, pig-tailed chips show that unglazed belt keeps on cutting.

Better Grinding

Carborundum Co.'s new contact wheel reduces glazing of abrasive belts, cuts production time, gives more uniform finish.

Abrasive belts normally lead a short life when grinding away at metals. Tiny metal particles embed themselves in the belt, glaze it, and stymie cutting action long before the abrasive is worn. Carborundum Co.'s new "61" contact wheel, which forces the belt against the work piece, doubles belt life by stopping glazing. It also gives higher cutting rates.

• **Serration**—The gains stem from the serration design on the 61 rubber contact wheel. Serrated wheels aren't new, but the 61's serrations are. Carborundum engineers borrowed a leaf from design of milling cutters, gave the serrations a relief angle (picture). Making the serration lands narrow and wide-spaced also helped.

The design allows abrasive particles contacting the work surface to dig in harder; yet it doesn't let metallic chips load up the belt. You get stiffness for cutting action with flexibility that fights glazing. The new wheel also makes the belt cut cooler.

A glazed belt stops cutting and starts rubbing off metal. That's bad for the surface finish. With the "61" wheel, the belt keeps cutting near tail end of belt life (picture).

• **Advantages**—There's a four-way gain with the new serrated rubber contact wheel in belted abrasive work:

- Lower abrasive costs from extended belt life.
- Less production down time be-



SERRATIONS are the payoff in Carborundum Co.'s new rubber contact wheel.

cause belts don't have to be replaced so often.

• More uniform finishes and fewer rejects due to fairly stable cutting rates.

• Less operator fatigue because the belt cuts so freely.

In one test, the "61" wheel was put to work on flat surface grinding of auto bumpers. A 30-in.-wide belt was used. With the new wheel, each belt produced 600 pieces as against 300 pieces with the same type belt and a different wheel. The new setup also removed 128% more stock. Wheel "61" is now on the production line in this plant.

Carborundum compared the "61" wheel with others at its laboratory in grinding low-carbon steel. Here are the results:

- Two to four and one-half times more stock was removed by the 61.
- Belt life increased two to five times.
- Cutting rates after continued use dropped off only one-fifth as fast with the 61 as with the others.

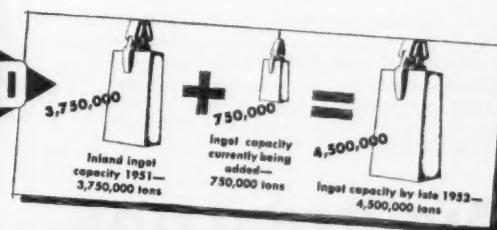


It's the fellow with the long white whiskers and the "DO" engraved on his brief case. He's asking for a lot of our steel. And he's getting it.

While his purchases may hurt some of our regular customers, we're far from reluctant to help him out . . . for we want him to be ready to do whatever is required, if and when Uncle Joe starts the fireworks.

In the meantime, we're building so that he, and all of our friends in the midwest, will have more steel.

*More scrap
from you...
means more
steel for you*



INLAND STEEL COMPANY. 38 South Dearborn Street, Chicago 3, Illinois

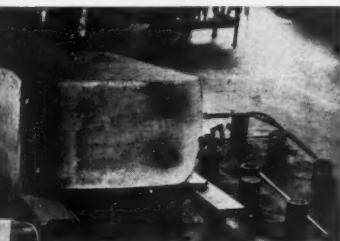
Principal Products: Sheets, Strip, Tin Mill Products, Bar Mill Products, Plates, Structural Shapes, Floor Plate, Piling, Reinforcing Bars, Rails and Track Accessories, Pig Iron, Coal Chemicals.

Sales Offices: Chicago • Davenport • Detroit • Indianapolis • Kansas City • Milwaukee • New York • St. Paul • St. Louis.

Shaping heavy forgings faster...at less cost with machine gas cutting



NORTHERN ORDNANCE, INCORPORATED of Minneapolis, Minn., had a problem of shaping a heavy alloy steel forging into a given contour. Established methods — machining, or contour forging the rough casting to precise dimensions — were too costly of time and money.



A. P. Demmer and R. F. Helm-kamp, Airco Technical Sales Representatives, recommended oxyacetylene machine cutting the rough forging, using an Airco No. 6A Oxygraph.

Since the forging was about 70" long and 28" thick, weighing almost 7 tons, it was necessary to build special cutting support jigs — one for each cutting

requirement. Further, to handle the many cutting positions, the Oxygraph had to be raised 4' off the floor.

The operation was highly successful. The shape cutting technique proved extremely economical and fast, and the company was highly pleased with both the technical aid furnished and the results obtained.

TECHNICAL SALES SERVICE — ANOTHER AIRCO PLUS-VALUE FOR CUSTOMERS

To assure its customers of high efficiency in all applications of the oxyacetylene flame or electric arc, Air Reduction has available the broad, practical experience of its nationwide Technical Sales Division personnel. The collective experience and knowledge of these specialists has helped thousands to a more effective use of Airco processes and products. Ask about this Airco "Plus-Value" service today. Write your nearest Airco office.



AIR REDUCTION

AIR REDUCTION SALES COMPANY • AIR REDUCTION MAGNOLIA COMPANY
AIR REDUCTION PACIFIC COMPANY
REPRESENTED INTERNATIONALLY BY AIRCO COMPANY INTERNATIONAL
Divisions of Air Reduction Company, Incorporated
Offices in Principal Cities

Tin-Plate Producers Switch From Palm Oil

Palm oil exporters in North Africa and the East Indies can scratch a good U.S. customer off their lists.

From now on, tin-plate producers will be switching from palm oil to a specially processed tallow for use on plating lines. Although the oil has been traditional in tin plating, its sources of supply and price have talked it out of a job. Foreign sources are weak ones during a war. And lately the price of the oil has looked awfully high to U.S. users.

To find a substitute, American Iron & Steel Institute passed the research job on to the Armour Research Foundation of the Illinois Institute of Technology. Armour has come up with a tallow that not only fills the bill, but is economical.

• **It's Almost Ideal**—For plating operations, palm oil has an almost perfect combination of hard-to-find characteristics. It won't go rancid in storage. Tin doesn't affect it chemically. And tin-can makers can solder, lacquer, or lithograph on top of it.

In the actual operation, the plating is applied by passing a sheet of metal



It Keeps Coolers Cool

Liquid helium—chemistry's coldest element—would drop the mercury down to about -452F on your back porch thermometer. To store the subzero stuff, Westinghouse Research Laboratories has a lab version of a thermos bottle that keeps it from thawing into gas for 100 days. The sphere-shaped container (above), which holds the helium is immersed in liquid nitrogen, another supercold element. Westinghouse thinks that its container is an answer to the problem of shipping such refrigerants.



Smooth sailing in a sea of paperwork

THREE'S no better way to sink the Paperwork Pirate and the unnecessary costs the Paperwork Pirate represents than to mechanize your paperwork handling.

Mechanization provides the modern way to handle paperwork in every department of your business—from billing and payroll to purchasing and accounting. Blank paper in a Multigraph Dupletor becomes as few or as many copies as you like of any business form, with complete information recorded on it. You can reproduce typewritten or printed material, drawings or photographs, in a matter of minutes, and each copy is a sharp, clear, permanent original in black or colors.

The Multigraph way means efficient, low-cost production of business records. No need for you to keep expensive inventories of business forms. No waste from obsolete ones. You save valuable man-hours for more profitable work and get high-speed paperwork production free of errors and delay.

No wonder thousands of companies, large and small, are finding it pays to mechanize their paperwork procedures the Multigraph way! Phone your Multigraph man to see how you can sail through paperwork. Or write Addressograph-Multigraph Corporation, Cleveland 17, Ohio—Production Machines for Business Records.

© 1961 A-M Corp.

Addressograph-Multigraph[®]

Simplified Business Methods

SERVING SMALL BUSINESS — BIG BUSINESS — EVERY BUSINESS

Eastern's Atlantic Bond



makes a better lure of any letter

Your letters typed on crisp Atlantic Bond have distinction — that bright and tru-white contrast that clearly commands readership.

For here is a paper that is clean, brisk, and businesslike; a paper that

assures attention; invites readership. Specify genuinely watermarked Atlantic Bond in White, Cream or in any of twelve delightful colors — made with genuine Purocell® pulp — your guarantee of a fine paper.

EASTERN CORPORATION • BANGOR, MAINE

"Pleased as Punch"



No production line bottlenecks . . . and no hold-up in filling DO's since the grinding supervisor started using Simonds Abrasive Company wheels. No wonder he's pleased. There's plenty of satisfaction . . . and serviceability too . . . in these efficient production tools. It costs you nothing to let a Simonds engineer help determine where they fit into your plans for better grinding. Write.



EXECUTIVES — Simonds Abrasive Company's complete line has everything you need . . . grinding wheels, mounted points and wheels, segments and abrasive grain.

SIMONDS ABRASIVE CO., PHILADELPHIA 37, PA. BRANCH WAREHOUSES: CHICAGO, DETROIT, BOSTON
DISTRIBUTORS IN PRINCIPAL CITIES

Division of Simonds Saw and Steel Co., Fitchburg, Mass. Other Simonds Companies: Simonds Steel Mills, Lockport, N. Y.; Simonds Canada Saw Co., Ltd., Montreal, Que. and Simonds Canada Abrasive Co., Ltd., Arvida, Que.

through a bath of molten tin. A film of the oil is added to the coating to remove excess tin and protect it during cooling.

After two years of research, Armour picked tallow from a large field of substitutes. There's no problem of supply because it's a plentiful byproduct of meatpacking houses. And even after deodorization and additions of fatty acids it's a few cents cheaper than palm oil.

The tallow has already had a successful test at a major steel plant, where it produced hot-dipped tin plate on a regular plating line for more than a month.

• Cost-Cutter—Tin-plate producers use about 7,000 tons of palm oil annually. And at current prices they stand to save between \$500,000 and \$1-million each year, when and if they completely convert to the tallow substitute.

PRODUCTION BRIEFS

A petroleum shortage threatens the U.S. unless the industry ups refinery capacity by 700,000 bbl. a day within the next two years, according to Bruce K. Brown, deputy administrator of the Petroleum Administration for Defense. Brown suggests that capacity be added in safe interior locations reachable by water.

• A Geiger counter picks up X-rays reflected from new tin plate, measures the thickness of the tin coating to within 0.000006 in. at U.S. Steel's Gary (Ind.) sheet and tin mill. At present production rates, the extra-fine measurement saves the Gary mill enough tin for 1-million more cans a year.

• Mightiest jet engine in production—that's what Westinghouse's Aviation Gas Turbine Division claims for its J40-WE-6 turbojet. The engine is probably scheduled for operation in three Navy planes: McDonnell's F3H Phantom; and Douglas' F4D's night fighter, and A3D attack ship.

• A cotton so finely woven that it is waterproof without chemical treatment is a development of U.S. Agriculture Dept.'s Southern Regional Research Laboratory, New Orleans. A loom attachment, easily adapted to standard textile equipment, makes it.

• Byproduct uranium will be recovered from phosphates, the principal product of International Minerals & Chemicals' \$10-million plant at Mulberry, Fla. The Atomic Energy Commission has guaranteed the firm enough sulfur for capacity production.



OUTDOOR INDUSTRIAL LIGHTING



Inadequate lighting such as this makes it difficult to guard your plant boundaries properly. For a moderate

investment most plant protective lighting systems can easily be modernized and made much more effective.

Now, plug up the loopholes in your outdoor lighting



A continuous, well-planned system can double the protection offered by fences and walls. Plan now to give your plant the protection of a complete lighting system.

As the need for protection increases, as you move back into two- and three-shift schedules, a modern outdoor lighting system becomes more and more important to your production picture.

FOR PROTECTION, investigate the low-cost benefits of a soundly planned protective lighting system. New techniques, new types of fixtures, or minor adjustment of your present equipment can bring your lighting up to date for a very moderate investment.

FOR SAFETY in handling outdoor traffic, look into today's techniques of improved area lighting for loading platforms, docks, parking facilities, and roadways.

FOR INFORMATION on outdoor lighting, contact the lighting specialist at your local G-E office, or write for the free bulletin, "Outdoor Lighting for Industrial Plants." Address Section 451-165, General Electric Company, Schenectady 5, N.Y.

GENERAL ELECTRIC

451-165

NEW PRODUCTS



Illustrated above is a metal deep-drawing process now in use at the Scaife Company in Oakmont, Pa., that has really seized the imagination of engineers and production men throughout industry.

The most significant and unusual aspect of this deep-drawing operation is that it is accomplished by one stroke of the H-P-M press. And, the metal is turned "inside out" to accomplish it. Production men can immediately recognize the economies brought about by fewer operations. Two other large manufacturers (names upon request) have new H-P-M Presses in operation using this remarkable "reverse-draw" method of manufacturing pressure vessel components.

Again, this is but another example of the leadership enjoyed by H-P-M engineering and manufacturing "know-how" in the metal working, plastics and die casting fields. Put H-P-M to work on YOUR production problems—a note on your company letterhead today will bring the information you request.

- Makers of Presses for the Metal Working and Processing Industries
- Plastics Molding Presses
- Die Casting Machines
- Hydraulic Pumps, Valves and Power Units



THE HYDRAULIC PRESS MFG. CO.

1000 MARION ROAD, MOUNT GILEAD, OHIO, U.S.A.



Pocket Your pH Probe

Complex industrial apparatus has a way of turning up in your pocket nowadays. The latest item is a pocket-sized edition of a pH meter and probe unit for on-the-spot measurements of the acid or alkaline content of solutions. It's made by Analytical Measurements, Inc.

To make a test, you first calibrate the instrument; that is, you adjust it for accuracy after check-testing a solution with a known value. Then dip the probe into the solution to be tested. You get a direct instant reading, said to be accurate to 1/10 pH.

The self-contained unit comes complete with batteries in a Bakelite case that measures about 3 in. x 6 in. x 2 1/2 in. Weighing 3 lb., it can be slung over the shoulder or hung around the neck. The meter is scaled from 2 pH to 12 pH.

• Source: Analytical Measurements, Inc., 585 Main St., Chatham, N. J.

• Price: \$125.

Building-Block Speedup

Pushbutton efficiency may be in store for the building-block manufacturing business. With the No-Pallet Block Machine produced by General Engines Co., Inc., 21 cinder or concrete blocks a minute are finished and readied for pickup by fork-lift trucks.

The unit first mixes and forms the blocks. (There's an extra-long vibration period to provide for better mixing of materials, the company says.) The machine travels 3 1/2 cycles a minute, makes six blocks on a rack at each cycle. Then an automatic elevator, worked by lever action, stacks 64 building blocks on racks, ready for transporting. The elevator system eliminates

Defense Calls For Paint, Too!



"ON TARGET," bombs must be perfect from fuse to fins—in spite of punishment by sub-zero cold, steaming tropic heat, salt spray, sandy winds.

The finish on *any* military equipment is of tremendous importance for effectiveness in combat. That is why government specifications for finishes—"paint," if you like—are so important to the manufacturer with Defense Orders.

ZAPON keeps up to date on government finishes "specs." ZAPON technicians concern themselves with *more* than merely providing a finish that conforms to "specs." Our Customer Service Department tackles problems of surface preparation, finishing procedures, drying or baking—all of this contributes to a finish that provides long-time protection for a defense item.

This is ZAPON Service from Every Angle.



INDUSTRIAL
FINISHES

ATLAS
POWDER COMPANY
WILMINGTON 99, DELAWARE

For
Industrial Finishes
STAMFORD, CONN.
NORTH CHICAGO, ILL.

SOUTH CAROLINA OFFERS YOU THESE EIGHT INDUSTRIAL ADVANTAGES

- Cooperative State and Local government
- Nearness to markets
- Dependable, highly productive workers
- Gentle climate
- Wealth of natural resources
- Abundance of water and power
- Splendid transportation system (land, sea, air)
- Low cost site and construction costs

Many areas can offer you some of these advantages, but South Carolina offers all eight.

This combination will make your new plant location profitable. Write us about specific facts on your particular situation. Your inquiry will be handled in strictest confidence.

We want you in South Carolina. Write, wire or telephone (LD 94) today.

CHARLES N. PLOWDEN, Director
Research, Planning and Development Board
Dept. BW-4, Columbia, S.C.

South Carolina



the need for offbearers, men or conveyor machines that usually remove blocks from a machine and stack them.

No-Pallet Block Machines are available within six months of the date of order.

- Source: General Engines Co., Inc., Gloucester, N.J.
- Price: About \$14,000.

Draft Cap Aids Heaters

To keep a heating system in trim, you've got to maintain an even draft. Tesco, Inc., claims its draft cap, called Blue-Blaze Heat Miser, protects a vent from high winds and rain.

Heat Misers press-fit onto the top of standard-sized, round vent-pipes. The aluminum cap is constructed to balance the effect of wind pressure on the draft, regardless of velocity or direction. Passage of wind through the cap creates a steady suction that channels air from the vent upward and out. The cap prevents both backdrafts and excessive suction of heat from the chimney, according to Tesco. Reportedly rainproof and splatterproof, it maintains a normal draft at all times.

You can install the cap without using tools or extra parts. To perform effectively, it requires a roof-clearance of at least 8 in. Draft caps come in sizes ranging from 3 in. to 8 in.

- Source: Tesco, Inc., 110 S. Norfolk, Tulsa, Okla.
- Price: \$1.87-\$4.29.

Handy Handling Box

The Hazen Knock-Down Materials Handling Box is easy to assemble or collapse for many storage and transportation purposes. Constructed of square steel tubular frames and corrugated steel panels, the container has these features:

- The boxes nest in such a way that you can stack five or six loaded boxes where formerly only three or four were stored. Disassembled, 10 units are said to fit into the space required for four assembled boxes.

- You don't have to use loading binders or strappings when shipping the boxes.

- Fork-lift trucks can carry as many as three loaded units at a time.

- By removing the sides, you convert the box into a storage bin, cabinet, or shelves.

- A worker can remove heavy materials from a box more easily because he can detach the nearest side.

The manufacturer, Jervis B. Webb Co., builds two Hazen boxes: "A" Box is 48 in. long, has a capacity of 27.5 cu. ft.; "B" Box is 54 in. long with a 30-cu. ft. capacity.

- Source: Jervis B. Webb Co., 8951 Alpine Ave., Detroit 4, Mich.

Receivables?

Payables?

General Ledger?

Payroll?



Yes-

ready for any job at the
twist of a knob!

Burroughs Sensimatic

the completely New accounting machine

This is the "mechanical brain"
that masterminds the Sensimatic

This control panel, or sense plate, directs
every carriage movement, every mathematical
function. Each panel controls four separate
accounting operations—in any combination.
Panels are instantly interchangeable... there
is no limit to the number that can be used.

There's no limit to the number of accounting jobs a
single Sensimatic will do. It does them swiftly—as fast
as the fastest operator commands. It does them easily—
with minimum operator effort, with no waste motion.
And it changes from one job to another instantly—at
the twist of a knob.

Burroughs Sensimatic can do wonderful things for you
on your accounting... is already doing them for busi-
nesses large and small. See all its features for yourself
... learn the surprisingly low cost of applying them to
your business. See what the Sensimatic can do for you!

Call your Burroughs man today. Consult the yellow
pages of your telephone book. Burroughs Adding
Machine Company, Detroit 32, Michigan.



WHEREVER

THERE'S BUSINESS THERE'S



Burroughs



"...most chair for the
money I ever saw!"

"...best seat
I ever sat on!"



COSCO

"FINGER-LIFT"
(Patent Pending)

Office Chair

TO RAISE: Place foot on circular rung, release control lever and lift seat to desired height.

TO LOWER: Lift lightly on control lever.

Posture Back
adjusts 3 ways

That's the consensus of opinion among employers and employees, alike: Cosco "Finger-Lift" Office Chair is a *better* seat—a *bigger* value! Foam rubber-padded, revolving "saddle" seat raises or lowers—quickly, easily and *positively*—to any height between 16" and 20" . . . backrest adjusts three ways. Durable, washable, vinyl plastic upholstery on seat and backrest in green, brown, maroon or gray; all-metal frame finished in gray, brown or olive green baked-on enamel, or chromium. Life-time lubricated, soft rubber casters, with ball bearing swivels. Ask for free demonstration at leading office equipment dealers. Or write for dealer's name: Cosco, Dept. BW-4, Columbus, Ind.

Illustrated: Model 16-C, gray enamel finish. Also 16-D, brown enamel; 16-G, olive green enamel; 16-B, chromium. Retail prices about \$29.95 to \$31.95 (slightly higher in Florida, Texas and Western states).

HAMILTON MANUFACTURING CORPORATION • COLUMBUS, INDIANA
Makers of COSCO Household Stools, Chairs and Utility Tables

NEW PRODUCTS BRIEFS

Typewriter type stays clean and shiny when you stroke it with a dry-rubber tool called Dee-R-Tec, according to Safeguard Corp., Lansdale, Pa. The tool retails for \$1.10, is said to assure you of clean, neat letters without the bother of a messy cleaning job.

A small refractometer determines the moisture content of honey in a few minutes. It is made by Bausch & Lomb Optical Co., 635 St. Paul St., Rochester, N. Y. The instrument gives a direct reading to 0.1% or a range of 12.5% to 27%. A thermometer that's graduated in percent of moisture eliminates the use of temperature correction tables in making scale readings.

An all-purpose cleaning pad absorbs like a sponge, wipes like a mop, and outlasts cotton three to five times, according to the manufacturer, Tower Industries, Inc., Cleveland, Ohio. Tower makes it from du Pont's cellulose yarn, treats it with a mold-inhibiting agent that's supposed to keep it clean and odorless.

No water penetrates walls of brick, concrete, cement, or cinder, when you apply a water-proofing liquid called Dashide, according to Dasco Co., Inc., Baltimore 31, Md. Sprayed or brushed on, Dashide fills the pores, seals cracks. It reportedly resists acids and alkalies, can't run, crack, or peel.



Head-Size Ice Pack

Now you really can wrap a tray of ice cubes around that throbbing head. This flexible, plastic tray, called Bates Frez-it Pak, is permanently filled with water. It freezes in about 45 min., provides an ice-cold application for an hour. Handled by Merchants & Manufacturers Co., Springfield, Mass., it's recommended for reducing temperatures, relieving throat irritations, and for general relaxation.

PORTRAIT OF

Preparedness



MILLS **Movable** METAL WALLS



Your organization will never be the victim of "frozen space"—an obstacle to preparedness—if you equip your buildings with Mills Movable Metal Walls. Why not look into the possibility now? Write for Mills Catalog No. 51. We will be happy to give you further information upon request.

THE MILLS COMPANY • 967 WAYSIDE ROAD • CLEVELAND 10, OHIO

Tinnerman Products, Inc., Cleveland, Ohio
Architects: Mc George-Hargett & Associates
Builders: The Sam W. Emerson Co.

The new home of SPEED NUT fasteners is a combination of practical planning and architectural artistry, a design-for-efficiency, the last word in modern production and management facilities. But its keynote is an obvious *preparedness* to meet the challenges and opportunities presented by changing economic conditions.



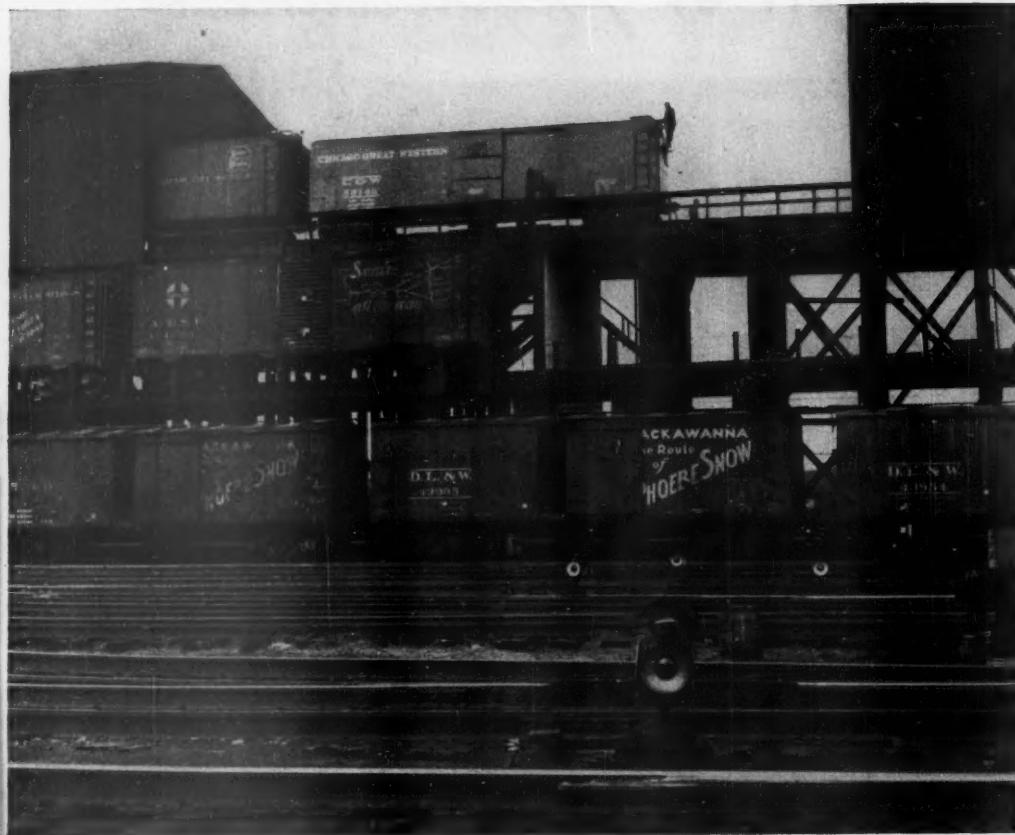
The new Tinnerman building is designed for *flexibility*. Most of its interior space, for offices and factory enclosures, is subdivided by Mills Movable Metal Walls. Pictured at the left is a typical executive office equipped with metal and glass partitions.

Mills Movable Metal Walls are solid, attractive, insulated and sound-proofed. Easily erected, they require practically no maintenance and can be moved—*quickly, conveniently and at very low cost*—to fit any new layout or change in space requirements. Changes can usually be made overnight or during a weekend, without interrupting normal business routine.

This maximum mobility with minimum labor is the result of the *demonstrably superior quality* of Mills Movable Metal Walls, developed through more than 30 years of accepting complete responsibility for their design, construction and installation.



FIGURES OF THE WEEK



STACKED UP grain cars from all over the country are piled up this way in Lackawanna R.R.'s Hoboken yard.

SEVENTH IN A SERIES

Keeping Track of Freight Cars

A freight car is one thing that sounds like it ought to be easy to count and keep track of. It's big, and its owner's name is always plainly marked on its sides. But counting and keeping track of where whose cars are is a big, complicated part of railroading that involves lots of people and an elaborate system.

• **What Makes the Problem**—The thing that makes it a big problem is the fact that no railroad goes everywhere. In order to send a carload of freight from say Scranton, Pa., to San Francisco, the car has to travel over the tracks of several railroads, plus terminal and switching lines.

It's true that, if every road operated only its own cars and kept them on its

own rails, it could keep track of them easily. But that would mean that every time freight changed lines, it would have to be unloaded and reloaded.

That sounds pretty complicated and expensive, too. But it's actually what used to happen in the early days of railroading when the various railroads had various track gauges. Freight car interchanging and through-shipping of freight in the same car didn't begin until the end of the 19th century, when nearly all U. S. roads adopted the standard track gauge of 4 ft. 8½ in.

Today, with standard gauge on all roads but a handful of tiny ones, a ton of coal or a bunch of bananas can travel straight across the United States in

the same car that it started out in.

• **What Figures Tell**—**BUSINESS WEEK'S** carloading Figures of the Week keep tabs on cars at the beginning of the process. They don't tell where they are going, but they tell how many on the average start out each day. **BUSINESS WEEK** gets total carloadings each week from Assn. of American Railroads, divides by six to get the daily average that appears in Figures of the Week.

AAR's figures don't include all carloadings; they count only revenue freight. That means any coal or other products loaded on cars and used by the railroads themselves don't show up in the total. And not every road reports. AAR issues figures for Class I



CARLOADING on siding or team track is start of railroad freight operations. Paper work has already begun.



NEXT MOVE is getting the car hooked up with a train that's headed for—or in the general direction of—the same destination.



Get all of the advantages of lumber **PLUS—**

Giving lumber resistance to the damage of rot and termites has helped solve many engineering and construction problems—has helped save countless hours of labor and thousands of dollars.



CONDUCTOR prepares his wheel report in the caboose. Report tells what cars he has in train, where they're going, who owns them, and plenty more. Each day it goes to car service department.



Wolmanized Pressure-Treated Lumber has done just that—available in all standard and many special dimensions, it can be painted, glued and worked in any way and as easily as untreated wood.

It lasts 3 to 5 times longer and is clean, odorless, non-leaching. Our engineers will be glad to discuss specific applications—or, write for the booklet "Service Records for Wolmanized Pressure-Treated Lumber" which gives the descriptions of applications in all types of industry.

American Lumber & Treating Co.

General Offices: 1601 McCormick Bldg.
Chicago 4, Illinois

Branch Offices: Baltimore,
Boston, Jacksonville, Fla., Little Rock,
Ark., Los Angeles, New York,
Portland, Ore., San Francisco.
Wolmanized is a registered
trade-mark of American Lumber & Treating Co.



INTERCHANGE at junctions is routine, but not by water. These cars are bound by float across New York harbor.



REPORT of interchange showing owner, destination, etc., of each car is prepared. Each part is a separate record.



THIS CATALOG MAY HELP YOU IN YOUR PRESENT OR FUTURE PRODUCTION PROBLEMS



- The wide scope of fabrication-by-welding of components and finished parts produced by American Welding is covered in this catalog. We have the "know-how" and the "know-why" because we've been at it for over thirty years. Let us send you a copy—it may lead to definite sayings in your present and future products.

roads—those grossing more than \$1-million a year—and some Class II's. It reports on the same roads it has been checking since it began counting cars 30 years ago. Actually, Class I's comprise practically all freight, with just a small percent handled by the rest. So AAR's figures can be taken as all railroads with hardly any inaccuracy.

- How They're Compiled**—The report is compiled this way: Each of the reporting roads wires or airmails to AAR the number of cars it has loaded during the week ending the previous Saturday midnight. The figures are broken down into eight categories: (1) grain and grain products, (2) livestock, (3) coal, (4) coke, (5) forest products, (6) ore, (7) merchandise l.c.l. (less-than-carload), and (8) miscellaneous. AAR simply adds up each category and sends its report out to anyone who is interested in it.

BUSINESS WEEK takes AAR's report, combines miscellaneous and l.c.l. freight, groups the rest into "all other carloadings," makes a daily average, and then publishes its two carloading Figures of the Week.

On the face of it, these two figures measure the same thing—they give an idea of how the railroads themselves are doing. For that purpose you could just as well lump the two figures together into one labeled "revenue freight." At least you would be able to get an idea of general activity in the industry.

But the two figures separated do more than that. Miscellaneous and l.c.l. can give a clue to the trend in general manufacturing. The miscellaneous category includes agricultural products—other than livestock and grain—such as fruits and vegetables, meat and dairy products plus sand, gravel, and stone. But the bulk of it is carloads of manufactured goods.

Meanwhile, the figure for "all other carloadings" shows the movement of the raw stuff of industry. Coal carloadings account for more than half of "all other carloadings" when mines are operating at normal levels. Forest products—mostly lumber and pulpwood, no manufactured products like millwork and grain also make up a good part of this class.

AAR's part in compiling this set of figures is relatively simple. It simply adds up what the railroads supply. The railroads themselves do the actual counting, and they do it as a minor part of the much bigger operation of keeping track of cars—theirs and those on their tracks belonging to other roads or to private-line operators. On top of that, each road must also keep tabs on what other roads have its cars on their tracks. This is called car service.

- Paper Work From the Start**—The wheels of the whole process are started

Management Men
should read
this booklet...



Written especially for you, "The Facts About Clean Oil" contains valuable information on oil purification for hydraulic equipment, metal working machines, turbines, gas and diesel engines, transformers, etc.

Describes, with actual case histories and plant photographs, correct methods and equipment used to stop downtime, cut down rejects, improve and increase plant production—important oil purification facts, applicable in many of your own operations, that could mean big savings in oil consumption and equipment operating and maintenance costs.

HONAN-CRANE CORP., 824 Wabash Ave., Lebanon, Ind.
a subsidiary of HOUDAILLE-HERSHEY CORPORATION

NAME _____

COMPANY _____

Mail Coupon Today

TITLE _____

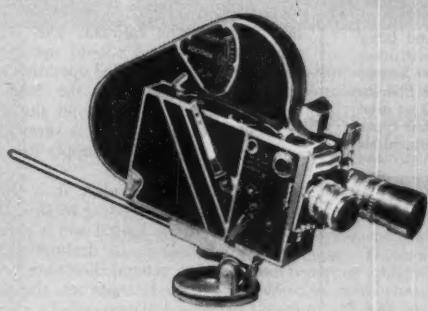
ADDRESS _____

CITY _____

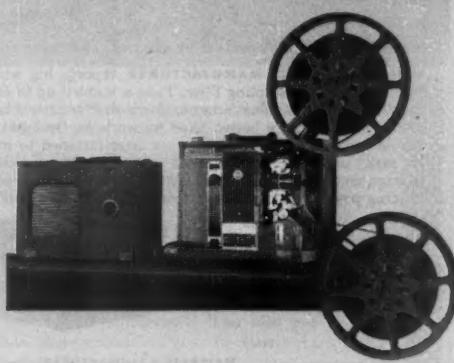
STATE _____

AN Action-Getting TEAM makes better business movies easier to produce and show

Good business films are valuable tools for training employees . . . for recording tests . . . for research and motion studies . . . for promotion to dealers and prospects . . . for showing how your product is made and used.



The Cine-Kodak Special II, the world's most versatile 16mm. motion picture camera, lets you make movies of the highest quality. Built right into this unique camera are all the controls needed for a variety of professional effects. Accessories lend even greater range. It's businesslike and efficient, yet it's almost as simple as a home movie camera—and just as inexpensive to operate. Sells for as low as \$898.50.



The Kodascope Pageant Sound Projector, entirely new in design, puts your 16mm. pictures on the screen brilliantly. Its new audio system gets unequalled sound reproduction from all types of sound film. With silent pictures, you can plug in a microphone and add your voice. Really portable, the entire unit goes into one handsome case weighing only 33 pounds. Sells for \$375, complete.



► Ask your Kodak dealer for a demonstration, or write for the free booklets: "16mm. Motion Picture Making with the Cine-Kodak Special II Camera" and "The Kodascope Pageant Sound Projector." Eastman Kodak Company, Rochester 4, N. Y.

Prices are subject to change without notice and include Federal Tax where applicable. Consult your dealer.

BUSINESS FILMS
... demonstrate, train, dramatize, sell

Kodak
TRADE-MARK



Here...
BOSTITCH Stapling
is up to 50% faster

VENETIAN BLIND MANUFACTURER reports big savings in time and labor with Bostitch P6 Stapling Plier. Tape is stapled up to 50% faster than with other stapling machines. What's more, Bostitch Pliers use a heavier staple, give a more secure fastening, are better liked by workers. Operator, above, uses P6 Plier to staple end loops of tapes which are later fastened to metal head rail. Also used for many other applications, such as attaching tags, tickets, sealing various types of bags, containers, pairing garments, other assembly operations. Has tremendous holding power. Mail coupon below for further information.

A FISTFUL OF POWER. Air-driven P6 Stapling Plier, is operated by finger-grip. Eliminates fatigue on high production jobs.



MATTRESS MANUFACTURER reports Bostitch Model ½ C Stapler quickly fastens sial pads to springs to make roll edge of innerspring mattress. Bostitch ½ C Staplers also used for piles of blueprints, invoices, other papers up to ½-inch thickness. For tough materials, too — fastening composition shingles, attaching tags to rugs.

SHIPPING ROOMS report Bostitch Foot- or Motor-Driven Bottom Staplers fasten bottoms of containers easily at high speed. Work goes through faster, goods are securely protected, arrive in better condition, assure customer satisfaction. Just one of many Bostitch Staplers, Tackers, Hammers that can remove shipping room bottlenecks.



WHAT ARE YOUR FASTENING PROBLEMS? There are more than 800 Bostitch machines available to help you cut costs. See your nearest Bostitch field man for advice — 300 in 112 key cities in the U. S. and in 11 key cities in Canada. Send coupon, too, for further information. No obligation.

Please attach this coupon to your firm's letterhead

BOSTITCH, 712 Mechanic Street, Westerly, R.I.

My present fastening method utilizes:

Nails Glue Tape Tacks Thread Pins Rivets Spot Welds

I fasten the following materials:

Wood Paper Rubber Plastics Fabrics Leather Light Metals

Please send me literature on specific Bostitch machines for my fastening needs together with your free "Time and Money Saving" book.

Name.....

Title.....

Firm.....

Street.....

City.....

Zone..... State.....

BOSTITCH®
AND FASTER
fastens it better, with wire

ALL TYPES OF MACHINES
FOR APPLYING STAPLES

ALL TYPES OF STAPLES
APPLIED BY MACHINES

rolling literally by the shipper. He contacts a railroad agent and orders a car of a certain type to be delivered at his plant or nearest tracks. He specifies what it is going to carry and where, and if he wants to, he can also specify the route—if it involves connections. The agent arranges for delivery of the car and makes out a waybill to go along with it. This form stays with the car—in the hands of the freight train conductor—all along the route, and it specifies the route the car will take.

The car may be one belonging to the originating road, or it may belong to another road or private line such as General American Transportation or Fruit Growers' Express. Rules worked out between the railroads and AAR provide that a road should use a car belonging to another road operating the terminal line to which the load is destined or operating beyond the destination—if such a car is available. Otherwise, the road can supply its own car.

Once the car is loaded, it is taken from the customer's siding or the team track where it was loaded and is placed in a train bound for its destination, or at least in that general direction.

When a train is made up, the conductor makes out a form called a wheel, or wheelage, report using the data contained on the waybills. This is a list of all the cars on the train beginning at the head end and running to the caboose. It includes the car's owner, number, type, origin, and destination. The purpose of this report is to keep a railroad informed of the whereabouts of all cars—its own as well as those of other lines—on its own tracks.

When cars are added or dropped from the train, they are recorded on the wheel reports. Each day these reports are sent to the road's car service department, where they are cut apart to form individual records of each car. These are then entered into mammoth car record books (some roads have eliminated many manual recording operations with punched-card machines).

• **Determining Charges**—All this elaborate bookkeeping serves two main purposes:

- With cars wandering all over the country, a road has to keep track of its rolling stock. Otherwise, it might not get some of it back. Like a borrowed lawn mower, a freight car will work just as well for the borrower as for its true owner.

- Car movements over the different railroads determine the way in which the carriers divide the freight revenue they receive from shippers.

If you are a shipper, you can think of your freight bill as consisting of two separate parts. One is a charge for hauling your stuff to the place where you want it. The other part is a charge



In the face of growing shortages of tools, materials, and manpower, American industry is daily receiving new demands for higher and still higher production . . .

NOW COMES THIS NEW DISSTON PLAN TO HELP YOU GET MORE OUT OF YOUR TOOLS, MATERIALS, AND MANPOWER—TO HELP YOU INCREASE PRODUCTION, CUT MANUFACTURING COSTS—BY STOPPING WASTE!

DISSTON GIVES YOU THE PLAN READY TO USE!

The foundation of this "Fight Waste" program lies in educating workers to use tools properly. For this purpose, Disston will supply you—without cost or obligation—with individual instruction cards containing specific facts on the most efficient use and care of the cutting tools listed below. Use of

these cards simplifies and multiplies supervision, speeds training of new and unskilled men, helps make the most productive use of time, effort, and equipment! You also get complete instructions on how to distribute the cards in your plant.

ORDER THESE CARDS IN ANY QUANTITIES:



- No. 1** Power Hack Saw Blades
No. 2 Hand Hack Saw Blades
No. 3 Milling Saws—Circular High Temper
No. 4 Fast Running Metal Saws—Circular—Medium and Mild Temper
No. 5 Carbide Saws
No. 6 Circular Knives, Cutters, Etc.
No. 7 Flexible Buck Metal Band Saws
No. 8 Inserted Tooth Circular Metal Saws
No. 9 General Information on Files
No. 10 Saw Files
No. 11 Machinists' Files
No. 12 Special Purpose and Wood Working Files
No. 13 Superior Swiss Pattern Files
No. 14 "Rights and Wrongs" in Refitting Circular Saws
No. 15 Wide Band Saws—Log Mill
No. 16 Narrow Wood Cutting Band Saws
No. 17 Dado Cutters
No. 18 Solid Tooth Circular Wood Cutting Saws—Flat Ground—Rip and Cross-Cut
No. 19 Circular Wood Cutting Combi-nation Saws—Hollow Ground—Raker Tooth Type
No. 20 Circular Wood Cutting Combi-nation Saws—Flat Ground—Raker Tooth Type
No. 21 Solid Tooth Circular Edger Saws
No. 22 Solid Tooth Circular Trimmer Saws—Flat Ground
No. 23 Narrows Band Saws for Cutting Plastics
No. 24 Solid Tooth Circular Plastic Saws—Hollow Ground
No. 25 Circular Knives
No. 26 Paper Knives
No. 27 Thin Planer Knives
No. 28 Heavy Planer Knives
No. 29 Router Knives—Raney and Slicer
No. 30 Chipper Knives
No. 31 Cutter Heads—Circular, Generated and Straight Knife Types



ALSO: "The Pocket Foreman"—a complete manual for the use of foremen and other supervisory workers on how to FIGHT WASTE in their departments—how to boost the productivity of their men. Contains a complete set of "Fight Waste" Cards as a guide in ordering.

GET COMPLETE DETAILS

Your Disston distributor will gladly give you information on applying this plan in your plant—help you determine your needs for "Fight Waste" material. Consult him or write Disston direct.



HENRY DISSTON & SONS, INC. 428 TACONY, PHILADELPHIA 35, PA., U.S.A.

OZALID speeds up

payments..

enables GIMBELS
to earn maximum
discounts!



**OZALID—the speedy copying process that's
60 TIMES FASTER than costly, old-fashioned copying.**

Ozalid, the world's most versatile copying process, speeds up the flow of paperwork and merchandise for Gimbel's, famous New York department store... and earns extra dollars every day!

Speed-up spells dollars

With Ozalid, Gimbel's receiving and accounting operations are now carried on simultaneously. Bills are paid the day the merchandise is checked!

This quick action lets Gimbel's cash in on "anticipation" discounts—rebates offered for bills paid before they fall due. Net profits increase when Gimbel's cuts days from the time formerly needed to pay their bills.

One easy step

Today, Gimbel's employs the same form of payment as before—a purchase order made out in triplicate—with just one dif-

ference. One copy of the purchase order is translucent. When merchandise is received, the customer's invoice is checked against the translucent copy, which is then sent to the Ozalid operator for duplication. Thus, the vendor's invoice is immediately available to Gimbel's Accounts Payable Section for figuring and checking, while merchandise is being checked against an Ozalid print at the same time. Then shipment goes to stock... payment goes to vendor... without delay.

You, too, can profit!

Whether your business is large or small, you, too, can profit from Ozalid's versatility in merchandising, manufacturing and engineering. Get the full story on how Ozalid helps you solve your copying problems. Write for your copy of "The Simplest Business System," today.

**OZALID, Dept. A-14
Johnson City, New York**
Gentlemen: Please send free illustrated
booklet that fully explains the Ozalid
process.
Name _____
Company _____
Position _____
Address _____
Or call your local Ozalid distributor
listed in the classified telephone book.

**Cut Copying Costs
... use
OZALID**

Ozalid—A Division of General Aniline & Film Corp. "From Research to Reality"
Ozalid in Canada—Hughes Owens Co., Ltd., Montreal

for providing a car to pack your freight in.

When the time comes for the roads to split the take, the originating road, which collected from the shipper, remits the proper share to all the other roads involved. The hauling charge is divided up according to the distances covered by each road that handled the car.

In practice, however, the freight bill isn't separated into the two components. The problem of paying a road for the use of its cars is handled through a system of per diem charges or rentals. Each road pays \$1.75 a day to the owner of each "foreign" car on its lines.

Under AAR car service rules, the roads maintain a sort of central clearinghouse. Per diem charges are offset against each other and against freight charges that one road has collected for another. Final payments settle up the balances.

• **Interchange Report**—Every time a road turns over a string of cars to another road, it makes out an interchange report. This lists the cars, as the wheel report does, and gives the name of the road that they were passed along to.

The interchange report goes to the road's car service department, where it is cut into individual records. These are sent back to the owning roads. This gives the owner a constant check on who is using his cars. When the time comes to settle up at the end of the month, these records will give him a verification of the per diem payments that other roads report they owe him.

• **Coming Home**—Besides that, if a road wants to call in a particular series of cars for repairs or other operations, it can find out on what road these cars are by consulting its interchange records. Then it can request that they be returned. Normally, a road that has any will try to find payloads in the direction of the owner. But if there aren't any available, it will generally send them back on exactly the reverse route over which they arrived, at no charge to the owner. If, however, the owner line is in a hurry to get them back, it can request that they be sent back empty over the quickest route—at a cost to it of 5¢ a mile.

• **Bookkeeping Problems**—This is only a rough, simplified description of the paper work behind every freight car movement. Car bookkeeping employs thousands of people in the industry in addition to operating people such as train conductors and yardmen. Every road has to know where cars are all the time. A medium-sized road like the Lackawanna has enough of a problem keeping tabs on its cars. It owns almost 17,000 of them. And the middle of last month about 11,500 of its own cars were on other roads while it had

CRANE

**the needed quality
in VALVES**

As the demands on industry grow heavier...
and failures become costlier . . . the greater the
need for dependable Crane Quality Valves.

**More CRANE VALVES are used
than any other make!**

For the Pulp and
Paper Industry, for
example, the Crane
line includes pat-
ented Pulp Stock
Valves. Literature
on request.

CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO 5, ILL.
BRANCHES AND WHOLESALERS SERVING ALL INDUSTRIAL AREAS.

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

Want wider distribution—quickly?

TWA's "SKY MERCHANTS" offer 4-engine, all-cargo service coast to coast every night!

Ship almost anything almost anywhere. Your best markets are only hours away. Call TWA today for rates, schedules, quick pick-up.

*Except Saturday & Sunday

All TWA flights carry
Air Mail and Air Cargo



MACY'S USES G-E RECTIFIERS



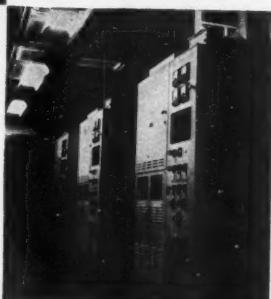
Above: These ignitron tanks are the heart of the rectifier. The main transformer is at the left, with the bus-bar enclosure between.

* * *

Right: Control and protection of the store's 5000-kw d-c power-distribution system is centered in metal-enclosed control cubicles each of which contains a separate d-c breaker compartment.

You can put your confidence in—

GENERAL ELECTRIC



9,600 "foreign" cars on its own tracks.

The problems of a giant like the New York Central are even greater with the more than 160,000 cars it owns. During a recent week, Central originated 46,000 cars of freight on its lines and received almost the same number from other roads at junction points.

• **Source of Statistics**—Every single movement means mountains of paper work all along the line and up to the nerve center—the car service department. Besides calculation of and checking on per diem and mileage charges, that's where all the other statistics originate. ICC requires every road to file piles of them periodically on every phase of its operations. Car service data supply much of this.

And each road's report to AAR comes out of car service, too. The basis of it is the waybill, which is made out at each station on the line for cars ordered for loading in the area. One way the car-loading count can be made is by having each station agent count waybills and report the total cars loaded to the division office, where it is added in with other station totals and sent to the car service department for final compilation. In any case, the figure AAR gets is a breakdown of types of freight loaded from the car service office.

• **For Further Information**—In addition to the Figures of the Week, there is other information available on carloading. The AAR weekly report from which *BUSINESS WEEK*'s figures are taken gives a breakdown of carloading and interchanging totals by districts, reporting roads, and by commodities.

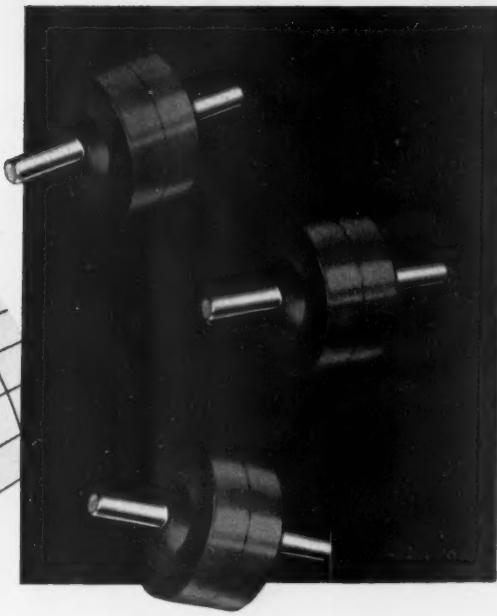
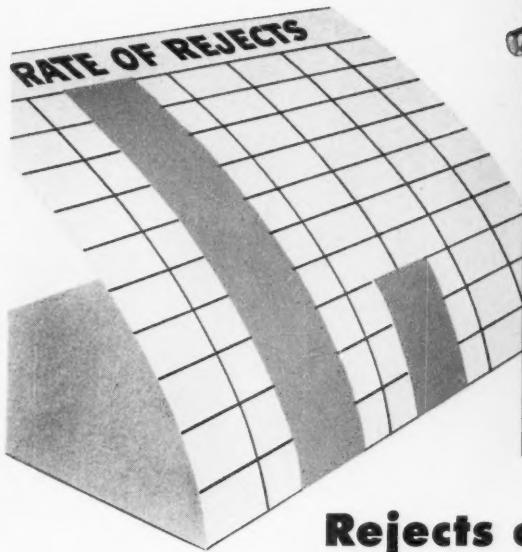
One thing that isn't told in this report, however, is how much freight is going into a car. The total cars loaded may be the same during two weeks when the amount of freight varies. The trend during the past 25 years is toward heavier loading of cars. This is partly because cars are actually loaded heavier, but mostly because cars are bigger now.

About the only thing that isn't loaded heavier now is l.c.l. During World War II, when motor trucks—which have been carrying an increasing part of this class of freight—weren't available because of gas and tire shortages, roads had to load l.c.l. heavier than ever. Since then, the trucks are back, and l.c.l. tonnage has fallen off a little.

Best place to look for past performance of the railroads tonnagewise is in ICC quarterly reports, which give figures for practically every product shipped, by districts. And the report gives tonnage figures for major roads.

There are plenty of other figures around, too. AAR, ICC, and American Railway Car Institute can supply almost any information you want.

But if you want to know about the business end of railroading—hauling—start with the Figures of the Week.



Rejects cut 70%

Like so many manufacturers, Globe-Union, Inc., received substantial rewards in a hurry from a simple switch to Plaskon Alkyd Molding Compound. In their television high-voltage capacitors, the outstanding electrical properties of this quick-curing plastic reduced rejections 70% when the parts were submitted to a high-voltage breakdown test. This manufacturer also reports: "Very appreciable labor savings have resulted from the use of Plaskon Alkyd" ... "Plaskon Alkyd has at least doubled the productive capacity of molding equipment" ... "The life of molding dies has been increased."

Again...faster, more economical production of an improved product—thanks to Plaskon Alkyd. Again...important evidence that it might pay you well to investigate Plaskon Alkyd in relation to your product.



New bulletins giving complete details of the many important properties of Plaskon Alkyd Molding Compound are now available. Write for them now!

mold it better and faster with

PLASKON DIVISION • LIBBEY • OWENS • FORD GLASS COMPANY
Toledo 6, Ohio

In Canada: Canadian Industries, Ltd., Montreal, P.Q.
Branch Offices: Boston, Chicago, New York, Rochester, Los Angeles
Manufacturers of Molding Compounds, Resin Glues, Coating Resins

PLASKON

ALKYD

JONES & LAUGHLIN



PHOTO BY ART D'ARAZIEN. DRAWINGS BY TOWN STUDIOS.

« Workmen tighten strapping on Hot Rolled Sheets before shipment from one of J&L Strip Sheet Mills. »

OTHER PRODUCTS MADE BY J&L—

COLD FINISHED PRODUCTS—"E" Steel—Jalcase—Electreat—Other Carbon Grades in Rounds, Squares, Flats, Hexagons and special shapes—Cold Drawn Tubing.

WIRE ROPE—CenterFit—Permaset—Preformed—Non-Preformed—in Full Range for All Purposes.

TUBULAR PRODUCTS—Standard, Line, and Drill Pipe—Casing—Mechanical Tubing (Butt Weld, Lap Weld, Electricweld—Seamless)

WIRE AND WIRE PRODUCTS—Bright, Annealed and Galvanized Wire—Electromatic Oil Tempered Spring Wire—Upholstery and Mechanical Spring Wire—Fencing—Barbed Wire—Staples—Nails.

TIN MILL PRODUCTS—Electrolytic and Hot Dipped Tin Plate, and Tin Mill Black Plate.

HOT ROLLED PRODUCTS—Structurals—Junior Beams and Channels—Jal-Tread Floor Plate—Bars—Shapes—Plates.

SPECIAL STEEL PRODUCTS—Oticsloy Hi-Tensile Steel and Jalloy (Alloy Steels), as rolled and heat-treated—in Plates, Bars, Small Shapes, Structural, Hot and Cold Rolled Sheets and Strip.

STEEL CONTAINERS—Drums and Pails—Galvanized Ware.

SHEETS AND STRIP—Hot and Cold Rolled Sheets or Coils.

COAL CHEMICALS

- an important producer of **HOT ROLLED SHEETS**



There is nothing very exciting about hot rolled steel sheets until you see them at work. The sketches at right give you a few examples of the "shirt sleeve" jobs performed by these rugged, flat steel sheets.

For example, when punched with holes to reduce weight and laid end-to-end, they provide emergency landing strips for the Air Force. Truck bodies, oil drums, parts for dozers and tractors, chutes of all kinds, wheelbarrows, automobile frames, panels and boxes for transformers and switch gear—steel tanks, from the monsters on stilts to the tank inside your home water heater. And there are many other tough jobs assigned to these unglamorous sheets of hot rolled steel.

They are tailor-made to fit customer's specifications as to the grade of steel, gage and width. Each application requires careful consideration of many factors such as analysis, strength, fatigue point, weight, and cost. There is a great difference, for example, between the grade and weight of steel in an auto frame and that in a wheelbarrow.

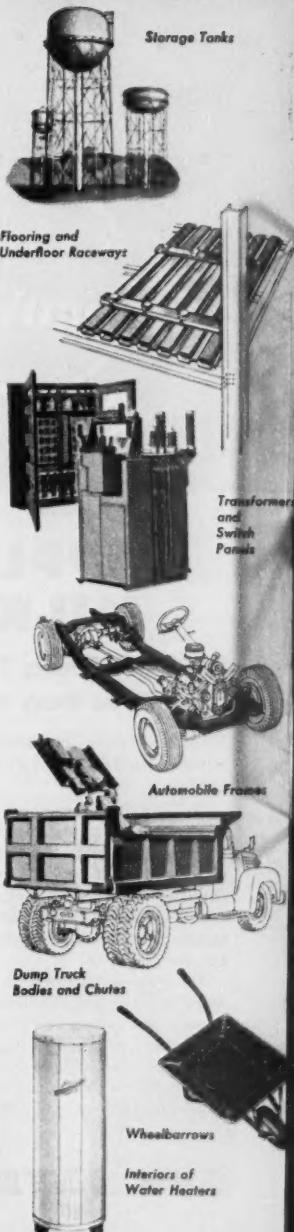
J&L has been a prominent producer of hot rolled steel sheets for many years. Like all J&L products, the various types of hot rolled steel sheets are made under "quality-controlled" methods. That means we control the quality of the steel through every step in steel-making from our own raw materials to the finished product.

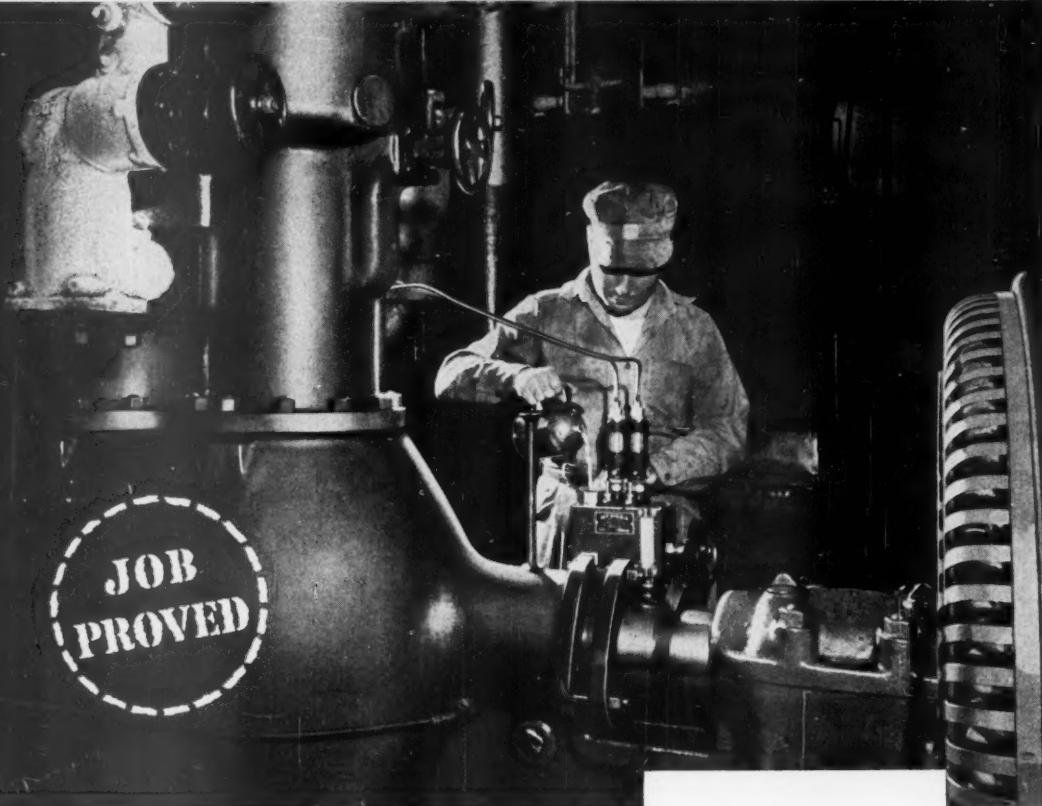
JONES & LAUGHLIN STEEL CORPORATION
PITTSBURGH, PENNSYLVANIA



Landing Mats, Steel Barrels,
Bulldozer, Tractor and Tank Parts

J&L STEEL





SUPPLY OF FRESH MILK ASSURED

**Sun Man's Timely Call Solves Refrigeration Problem;
Results in Many Other Valuable Recommendations**

No milk company can afford repeated refrigeration failures. The cost is far too high.

But they do happen unless the right compressor oil is used. In fact they happened with costly regularity in one of the country's largest milk plants. Oil after oil was tried, but in every case they sludged and formed a sticky, tarlike substance that interfered with the moving parts.

Two years ago a Sun technical man called at the plant at a time a compressor was acting up. Invited to study the problem, he suggested a grade of Suniso Refrigeration Oil particularly suited to the conditions. This "Job Proved" Sun product quickly

cleaned the system of sludge and deposits, because of its high natural detergency. As a result, the dairy adopted Suniso for all its compressors, and every one has been running at peak efficiency ever since.

An interesting sidelight: while in the plant that day, the Sun man offered a number of other suggestions. As a result, a bad sticking problem on the capping machines was solved; lubricant inventories have been reduced a third; shutdowns of bottle-washing machines have been entirely eliminated; repairs to motors have been cut in half. *Today the plant is 100 percent Sun-Oil-lubricated.*

**SUN OIL COMPANY • Philadelphia 3, Pa.
In Canada: Sun Oil Company, Ltd., Toronto and Montreal**

FINGER

Sometimes production moves along so well it lulls you into a false sense of satisfaction. Quality is fine, inventories low, costs in line—so you think! Then, with no particular objective in mind, you invite the Sun man to walk through your plant. From his wide experience in many other plants, he puts his finger on a way to make a saving—a saving you can't afford to miss. He does it without interrupting production, without consuming the time of your men. And you are pleased. But your case is not uncommon. For Sun's technical representatives are trained observers. Any manufacturer who invites them into his plant, invites improvements.

SUN PETROLEUM PRODUCTS ➤ SUNOCO ➤

MARKETING

Brands on Way Up Again

- Gimbel's big promotion this week is only part of a long-planned campaign, but the trend is going that way, too.
- Scarcities coupled with high incomes favor goods whose makers are well-known.
- Trend to self-service gives the edge to advertised names.

Gimbel's department store has been making about as much promotional hay out of an award as you can possibly make. Last week the Brand Names Foundation officially stamped the big New York City store The Department Store Brand Name Retailer of the Year. Since then, Gimbel's has been taking full-page ads to trumpet its new honor—and also to sell merchandise.

• **Buildup**—The granting of the award was just what Gimbel's had been waiting for. For four years it has been building up to just such a promotion on behalf of brand names. Slowly, over that period, it has been shifting emphasis more and more to merchandise sold and advertised across the nation. Less and less does Gimbel's rely on goods to be sold under a private Gimbel's label.

The timing of the award couldn't have been better, however, had Gimbel's planned it that way.

• **Swing**—Another swing is coming in the old battle of private vs. national brands. And Gimbel's is latching onto brand names in a big way just as they start on another upswing. Here's the picture:

- Shortages are on the way in many lines.
- Consumer incomes are fat.
- So customers will favor quality goods—quality in their minds being partly associated with how widely the maker is known.

The battle between the two types of brands has had many ups and downs. The whole idea of private brands got its big impetus from chain stores, mail-order houses, and other mass merchandisers who wanted a firm grip on prices—hence, had to get some control over what a manufacturer charges them.

The depression saw the heyday of the private brand. Price was the big sales lure then, and private brand goods are usually made with price as the No. 1 consideration. For example, the Temporary National Economic Committee reported that, 'Between

1932 and 1937, sales of the lower-priced electrical equipment by mass distributors increased four times as fast as sales for the industry as a whole.'

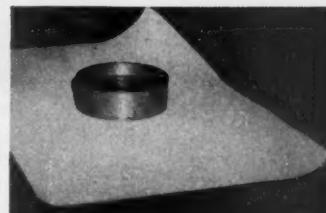
• **Brand Comeback**—The war turned the tables. As goods became short and income rose, private brands gave way rapidly before national brands. Consumers had money to spend. The buyer felt sure that he was getting standard quality when he bought a nationally advertised, nationally distributed item.

But after the war, with the return to competition, private brands once more began to put in an appearance. They haven't yet, according to most marketing men, returned to their pre-war status. Even so, by 1949 the pressure from private brands was beginning to worry the national brand people. That year Grey Matter, published by Grey Advertising Agency, had this to say: "The national brand has enjoyed seven fat years. The private label has suffered through seven lean years." But now, it warned, the private label "is staging a comeback. It will give the nationally advertised brand furious competition."

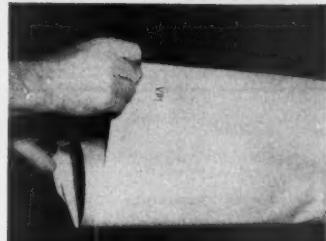
But the comeback was only partial. In Philadelphia, for example, Lit Bros. department store put on a test to see which pulled the better: Simmons mattresses under their own name or under an unknown label. Even at higher prices, the Simmons name pulled far better (BW-Jul. 5/47, p65). That seemed to indicate that price factors aren't so potent as they were 15 years ago.

• **Help Yourself**—There was another factor: As the self-service idea swept through retailing, the personal sales talk—often needed to make a private-brand sale—disappeared. Preselling, via advertising on a national scale, seemed to give a considerable advantage to the national brands. The big, notable convert to this theory was the Kroger Co. food chain, which has put heavy stress on the national brands (BW-Oct. 11 '47, p62).

• **Supplementary**—Many retailers look on private brands as supplementary to



Fork lift truck parts



... just wrapped in
Angier VPI*

go Rust-Free

at less cost!

No grease, no oil...no grease-proof paper. Yet, saving the cost of these materials is only part of the story. Wherever parts for famous Hyster lift trucks are simply VPI-wrapped, packaging time is greatly reduced! Lighter weight packaging pays off in lower shipping charges. Now, all overseas air shipments are protected by Angier VPI. Parts arrive rust-free, protected only by an invisible vapor. Because VPI eliminates slushing, Hyster customers save former "cleaning" costs. Why not cut the costs of packaging your metal products. Write today to Angier Corporation, Framingham 7, Mass.

*Reg. U.S. Pat. Off.—
Vapor rust preventive



15

"MANAGEMENT BOOKS OF THE YEAR"

These recent McGraw-Hill books

SELECTED BY

a special panel of members of the

SOCIETY FOR ADVANCEMENT OF MANAGEMENT

as outstanding literature in the field of
management principles and techniques



1. PRODUCTION PLANNING AND CONTROL.

By Thomas E. Landy. \$5.50

2. STREAMLINING BUSINESS PROCEDURES.

By Richard F. Neuschel. \$5.00

3. MANPOWER ECONOMICS AND LABOR PROBLEMS.

By Dale Yoder. Third Edition. \$5.00

4. MANAGEMENT PLANNING AND CONTROL.

By Billy E. Goetz. \$4.00

5. ENGINEERING ECONOMIC ANALYSIS.

By Clarence E. Bullinger. Second Edition. \$4.50

6. LAYOUT PLANNING TECHNIQUES.

By John B. Immer. \$5.25

7. INSPECTION ORGANIZATION AND METHODS.

By James E. Thompson. \$5.00

8. MAKING CAPITALISM WORK.

Edited by Dexter M. Keezer. \$3.50

9. SMALL PLANT MANAGEMENT.

A Small Plant Committee Research Study Prepared under
the Auspices of the Management Division of the A.S.M.E.
Edited by Dr. Edward H. Hempel. \$6.00

10. TEXTBOOK OF OFFICE MANAGEMENT.

By William H. Lettsongwell and Edwin M. Robinson.
Third Edition. \$5.00

11. HOW TO PLAN PENSIONS.

By Carroll W. Boyce. \$5.50

12. THE MANAGEMENT OF PERSONNEL AND LABOR RELATIONS.

By Gordon S. Watkins, Paul A. Dodd, Wayne L. McNaughton, and Paul Pruzin. Second Edition. \$5.75

13. WAGE AND SALARY FUNDAMENTALS AND PROCEDURES.

By Lionel B. Michael. \$3.50

14. METHODS-TIME MEASUREMENT.

By Harold B. Maynard, G. J. Stegemerten, and John L. Schwab. \$4.00

15. NATIONAL SECURITY AND INDIVIDUAL FREEDOM.

Committee for Economic Development Research Study.
By Harold D. Laswell. \$3.50

10 DAYS' FREE EXAMINATION

McGraw-Hill Book Co., 330 W. 42 St., N.Y.C. 18
Send me book(s) corresponding to numbers encircled below for 10 days' examination on approval.
In 10 days I will remit for book(s). I keep plus
freight, delivery and return my unwanted book(s)
postpaid. (We pay for delivery if you remit with this coupon; same return privilege.)

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

Name _____

Address _____

City _____ Zone _____ State _____

Company _____

Position _____

This offer applies to U. S. only.

national brands, rather than competitive with them. They use their house brands to provide low-end lines when such aren't available otherwise. This is the view taken by Allied Stores (BW-Mar. 31 '51, p78). It is also the view taken by Gimbel's.

Gimbel's has never gone in heavily for private labels, as has its big Manhattan competitor, Macy's. Gimbel's thinks that a well-rounded major department store needs some private brands for promotional purposes and

price competition. But they're of major importance in its basement store.

Copy for Gimbel's' brand names campaign is in the typical homey vein that has made the store's ads and advertising director Bernice Fitz-Gibbons famous. Here's a sample: "We probably shout more famous names, more often and louder, than any other department store. List while we bellow Bigelow-hark while we make the Milliken ring —while we make a noise for Louis Marx toys."



To Build This Supermarket . . .



Safeway Had to Build This Church

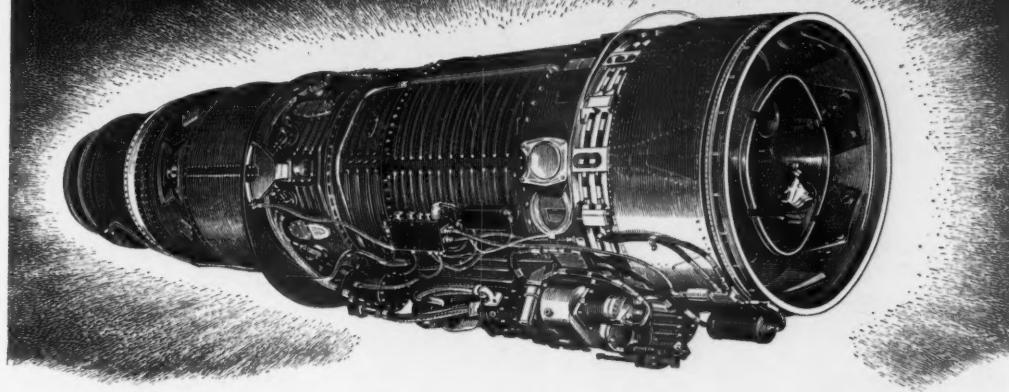
Safeway Stores, Inc., is expanding fast in Kansas City. The food chain is building seven new stores, remodeling or relocating all its other outlets.

But it ran into a problem that threatened for a time to scuttle plans for one of its biggest new stores. A site had been chosen in the fast-growing southeast section of the city; most of the property was bought. But right in the middle of the site stood the First Spiritualist Church. Its pastor, Mrs. Sarah Kraas, turned down Safeway's offer to buy the building and property. Then Safeway came up with a propo-

sition: It would build a new church nearby. Mrs. Kraas and her flock agreed to sell the wanted property, moved into their new church last November. In the meantime, Safeway has almost completed the store.

Safeway's Kansas City stores show some new thinking. Instead of the huge plate-glass windows that usually characterize supermarket fronts, Safeway is substituting a few small "jewel-box" windows. That way, valuable wall space can be utilized. And instead of the familiar buff color, Safeway's new stores will be of red brick, with a pylon tower.

Allison Wins Record U.S. Air Force Contract for Super-Jet Engines



New Turbo-Jet Leads with Greatly Increased Power and Fuel Economy

ONCE more Allison makes a major contribution to America's air power—a new Super-Jet aircraft engine that excels in power and fuel economy any other jet engine ever released for production.

It's the new J35-A-23 developed in cooperation with the Air Materiel Command—a completely new design—yet retaining the same basic diameter of the famed J35 series. This new engine develops more power per square foot of frontal area than any other jet yet produced. Four of these new engines will be installed in the YB-47C Boeing Stratofortress. They will produce more power than the six jet engines now used in previous models of the B-47 series.

This J35-A-23 now has been selected by the Air Force—in open competition—for a record-size production contract. Behind this latest award is Allison's unequalled experience in the design and production of more than 10,000 jet engines with total time in the air of over 700,000 hours.

This accents the length and breadth of Allison jet engine experience where it counts most—in the air. Many of these flight hours have been accumulated in Korea powering U.S. fighters for support of ground troops and keeping the skies clear of enemy opposition.

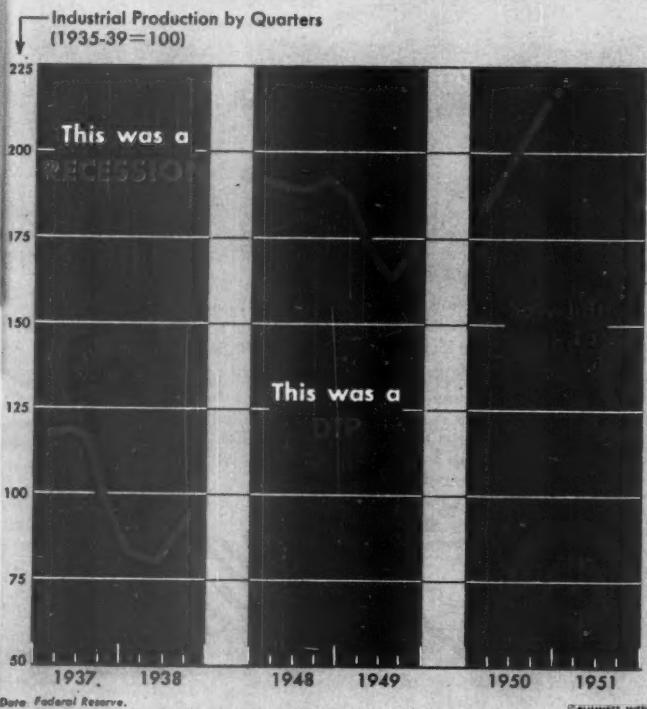
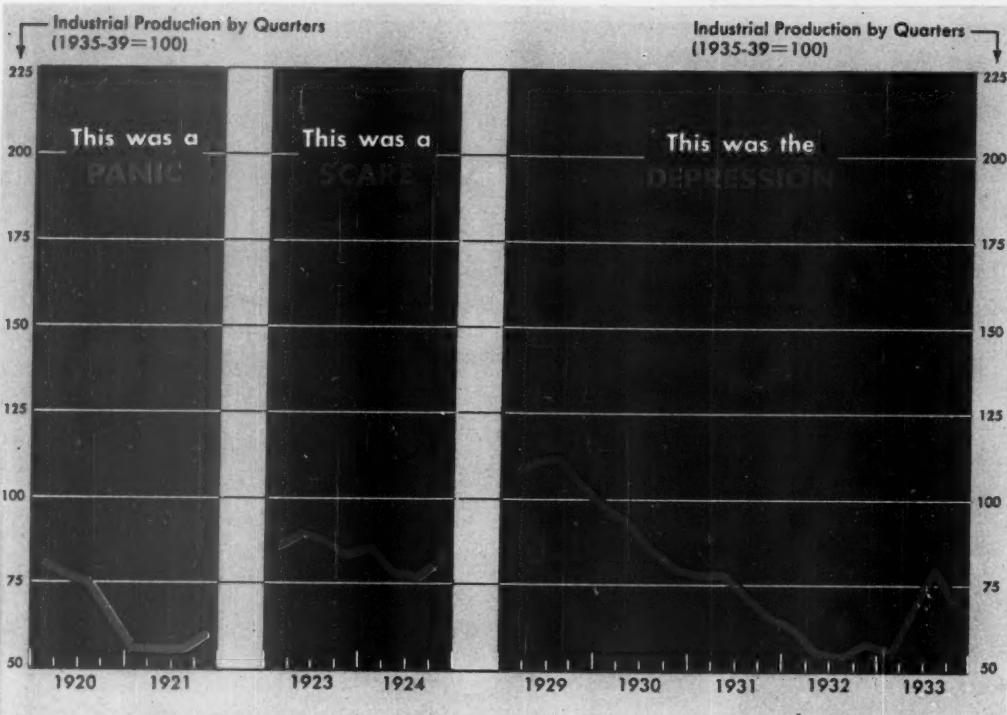
Production will continue at Allison on those combat-proven types of jet engines in addition to the new J35-A-23 Super-Jet and the new T40 Turbo-Prop engines.

The record production order for the new Allison engineered Super-Jet will be met through the combined facilities of Allison and the Chevrolet Motor Division which will build a substantial quantity of these Super-Jets.

Builders of J35 Axial,
J33 Centrifugal Flow
Turbine Engines and
T40 Turbo-Prop Engines

Allison
DIVISION GENERAL MOTORS CORPORATION
INDIANAPOLIS, INDIANA

"DEFENSE IS EVERYBODY'S BUSINESS—AIR POWER IS EVERYBODY'S PROTECTION"



Rogues' Gallery

Upward rush of business has slowed. So people worry about a slump. But it probably would be small potatoes.

"If this is a recession, let's have lots of them." That's the way one manufacturer greets all this talk about an inventory slump.

Most marketing men feel the same way—even the ones who find themselves hip-deep in inventory that is taking its own sweet time to move. The business boom has faltered a little this spring—especially in retailing. But there is an enormous difference between the "lull" or "plateau" that we are having now and the slumps of the past.

You can get a better perspective on what is happening to business now if you take a look back through history. In the process you can also get an education in the old game of, "Don't call it by its right name if it will scare people." That's always good politics. And sometimes it seems like good economics if it minimizes the slump by not stirring people up.

• Any Other Name—Back in the early 1900's, we used to have "panics." To

Bold Venture



A Salute to WESTERN AIR LINES

on its 25th Anniversary...

Western Air Lines made its first flight . . . from Los Angeles to Salt Lake City . . . on April 17, 1926. Western is 25 years old this week . . . the first airline in the United States to complete 25 years of continuous operation. From its original 651 mile route, Western's system has grown into 5000 miles of routes serving 13 western states and Canada.

21 years ago, just a few short years after this bold and venturesome beginning, Connecticut General issued group life insurance for Western, protecting all its personnel, including pilots, without flight restrictions. This was the first time such insurance had been issued. The step was only one of the many pioneering moves which Connecticut General has made in liberalizing both life and accident insurance, both on a group and individual basis, for those who fly.

Today, the personnel of 32 airlines are protected by Connecticut General group plans.



*A Pioneer in Group Insurance
And in Insurance for Those Who Fly*

CONNECTICUT GENERAL
LIFE INSURANCE COMPANY
HARTFORD, CONNECTICUT

LIFE • ACCIDENT • HEALTH • GROUP INSURANCE • PENSION PLANS



WATER COOLERS

Feature-packed for Sanitary Refreshing Cool Water



SANITARY TOP—The lustrous, gleaming top is easy to keep clean. Scientifically designed to prevent spillage. No crevices or corners to collect bacteria.



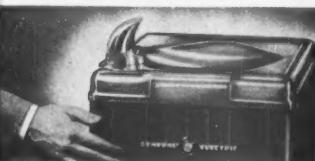
ANGLE STREAM, NON-SQUIRT BUBBLER—Stream angled to avoid water dripping back on nozzle from lips. Guard shaped to prevent contact of lips with nozzle.



COLD WATER RESERVOIR—Protects purity of water, does not give water metallic taste. Connection at rear of cooler for use when remote bubbler is desired.



SEALED REFRIGERATION SYSTEM—Efficient, dependable. Tamperproof and trouble-free. Double wall protection between refrigerant and drinking water.



HANDSOME, COOL GREEN, ALL-STEEL CABINET—Tough, wrinkle finish easy to clean—avoids fingerprint smudges. Design blends with modern office furniture.



SURE-TREAD FOOT PEDAL CONTROL—Avoids transfer of germs from user's hands to bubbler. Permits drinking when hands are full. Located to prevent toe scuffing.



FREE! 24 PAGE BOOK

General Electric Company, Section BWW-10
Air Conditioning Department, Bloomfield, N. J.

Please send without obligation to me the fully illustrated book, "Water at Work."

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

ZONE . STATE _____

You can put your confidence in—

GENERAL **ELECTRIC**

the extent that our early troubles were due to a flimsy banking structure and rapidly fluctuating money supply, panic was a pretty good name.

But after a panic or two, the word itself became frightening. So then we shifted to the word "crisis." But still we didn't give these things very precise definitions.

Then there was The Great Depression. After struggling through that, the country never wanted to hear the name again. Accordingly, what struck in the wake of 1937's money tightening and stock market break was termed, right at the White House, a "recession."

Along the way we come across the word "slump," and in 1949 there were suggestions such as "dip" and "bump" and "slide."

• **All Different**—One trouble with trying to name these downswings in business is that they rarely look exactly the same to any two people. But they have measurable characteristics; their overall effects are pictured in the business indexes. If you wanted to know how they looked, what they had in common, and how they differed, you would look at the business charts (page 86).

And what you would find, most importantly, is that they differ in depth and duration.

• **Some Bad, Some Worse**—For instance, the great depression of 1929-33 was both deep and long. The drop carried from a high of 113 in the Federal Reserve Board's index to a low of 55—or a drop of a little more than 50%. However, worse than the drop was the long, drawn-out nature of the bust. People not only lost their jobs but exhausted their savings.

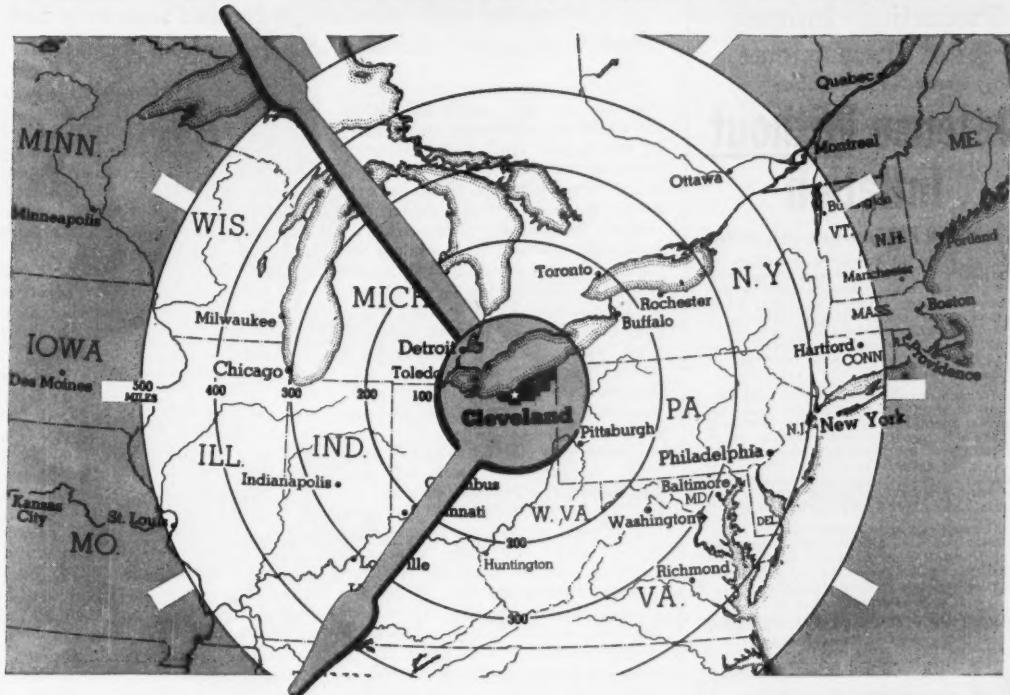
In contrast, the 1920-21 and the 1937-38 breaks were both severe (drops of 30% and 33%, respectively) but didn't last too long. The toughest part was the price break and inventory deflation in 1920.

And then take the dips in 1923 and 1949—14% and 17%, respectively. They not only weren't very deep, but they also weren't very long.

If a dip comes in 1951, it will be from a very high level. Gross national product—the total value of all goods produced and services rendered—is now running upwards of \$315-billion, the highest ever. (It was \$104-billion in 1929 and \$259-billion in 1948, although the dollar wasn't the same size in the various years.) Also employment now stands at 60-million, the highest ever for this time of year, and it will be higher as summer comes on. Similarly, unemployment is scarcely 2-million—an irreducible minimum without manpower controls.

Thus a dip, percentagewise, that might look fairly rough would still leave the economy at a pretty high level by all past comparisons.

THE BEST LOCATION IN THE NATION



For a better tomorrow, plan RIGHT today

FORESIGHTED PLANT LOCATION must take into account not only today's markets but also the markets of the next generation. For both, the Cleveland-Northeast Ohio area is *the best location in the nation* for many industries.

IN THE LONG RUN, THE SHORT HAUL PAYS!
This is the only industrial area that has a well-supplied, highly-diversified industrial community right at hand plus a market of 81,000,000 people within an overnight haul of 500 miles or less.

These, and other unequalled long-term advantages, have caused American industry to invest or commit *more than a billion dollars for new expansion here in the past 5 years.*

USE OUR FREE, CONFIDENTIAL Location Engineering Service for more information about *the best location in the nation*.
Phone, wire or write Development Department

Check These Advantages!

Only the Cleveland-Northeast Ohio area, *the best location in the nation*, offers industry this superior combination of long-term advantages:

- At the Market Center of America with 81,000,000 people within 500 miles.
- Superlative transportation by land, water and air.
- Electric power at low rates.
- Highly skilled industrial workers.
- Many producers of parts, materials and supplies.
- Basic materials right at hand.
- Ample financial services.
- Complete business and industrial services.
- Favorable tax structure (no state income tax).
- Diversified industries to supply and be supplied.
- Unlimited fresh-water supply.
- Desirable plants and plant sites.
- Excellent living and cultural environment.

WRITE FOR FREE BOOKLET

Write today for free copy of new booklet about Northeast Ohio, entitled "*In the Long Run, The Short Haul Pays!*" Concise, authoritative, prepared for top management men.



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

77 PUBLIC SQUARE • CHevy 1-4200 • CLEVELAND 1, OHIO

WHAT'S IN THE WIND ON—
Taxes • Prices • Wages
Production • Interest
Rates • Investments

READ THE NEW BOOK

Defense Without Inflation

By ALBERT G. HART Prof. of Economics, Columbia

If you could sit down with a group of America's ablest experts and discuss how we can pay for defense without serious damage to the civilian economy, you'd come away with some eye-opening answers . . . answers that would enable you to deal with future developments intelligently. And that's exactly what happens when you sit down with this book!

Written in collaboration with four top-ranking experts of the Committee on Economic Stabilization, DEFENSE WITHOUT INFLATION provides indispensable background on inflationary pressures . . . points up differences between "then and now" . . . projects a step-by-step picture of the effects of direct and indirect controls...and proposes a program for action.

It supplies you with authoritative information you need today—plus a Report by the Committee on Economic Stabilization that clearly defines where the true interests of business and industry lie.

\$2.00 at all bookstores, or
THE TWENTIETH CENTURY FUND
 330 West 42nd St., New York 18

PUNCHES sheets and covers of any size or weight, quickly, accurately

BINDS up to 250 books an hour with colorful GBC plastic bindings

BIND THIS MODERN WAY
 right in your own OFFICE
 or plant

Add prestige . . . color . . . attention-compelling appearance to reports, presentations, catalogs. GBC plastic binding equipment* quickly . . . easily . . . economically binds loose pages of all sizes in handbooks, custom-grade booklets. Pages turn easily . . . lie flat. Complete office equipment costs less than a typewriter . . . saves 50% over old-fashioned fastener-type covers. Anyone can operate.

*PATENTS PENDING

SPECIAL TRIAL OFFER
 FREE
 Send today for information and 2 handy pocket memo books bound on this equipment. No obligation.

General Binding Corporation
 808 W. Belmont Ave., Dept. BW-4
 Chicago 14, Ill.

GE Splits Up Appliance Department

Major and minor items will be handled separately, both in manufacturing and sales, since different methods are needed.

When you manufacture two lines of items that are sold entirely differently, you would do well to split the marketing job in two. And, if the manufacturing method for one is also a stranger to the other, then you might as well divorce the two operations entirely.

That's what General Electric Co. is doing right now with its mammoth appliance business. Two separate departments are replacing the old Appliance & Merchandise Dept. The Major Appliance Dept. will handle big ticket items such as refrigerators, ranges, washers, and dishwashers. The Traffic Appliance Dept. will handle irons, toasters, grills, mixers, clocks, and the like.

• **Cabinet**—Roy W. Johnson, GE executive vice-president, will tell you quickly why the company took the action. He points out first of all that there is a different problem in the manufacture of major and traffic appliances. Every item in the major line is a steel cabinet construction job. Even the garbage disposer qualifies when it is built into a sink, though otherwise it is an exception. The traffic line is made up almost exclusively of hollowware items. Fans are the exception here.

You see the breach widen even more

when you look at the marketing problems of the two lines. Traffic items are sold two ways chiefly. They are impulse purchase items—the sort of thing a housewife sees while on a shopping tour and says, "I'll take one of these." They are also hot gift merchandise. So much so that 35% of the whole year's business is done at Christmas time.

• **Investments**—Major appliances are poor gift items. The low point on their sales curve comes just when toasters and mixers are going great guns. Sales peaks for the big appliances are hit in the summer months. These items are of the planned investment type—the kind that requires a good deal of husband-and-wife consulting. The household budget gets a good going over, too, because the appliance purchase is usually made on an instalment basis.

There are about 150,000 retailers selling the traffic appliances; about one-tenth that number handle the major items. The ratio is about 20 to 1 in the case of distributors—less than 100 in the major appliance business and several thousand distributing the traffic line.

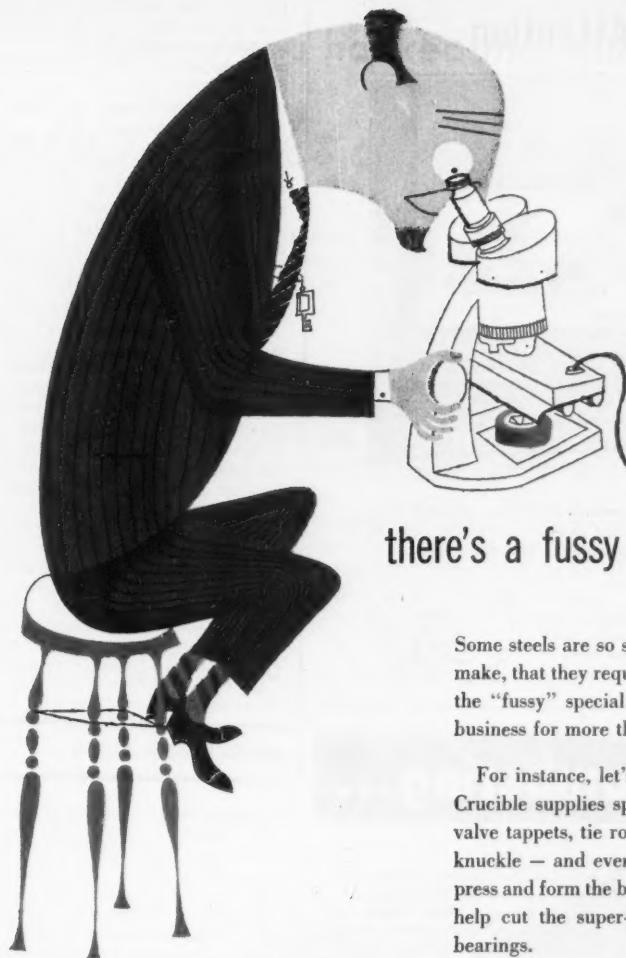
• **Decentralization**—Breakup of the old Appliance & Merchandise Dept. is another move in the long-range decentralization program of GE. In the past



They Sell Merchandise Over the Wire

Wurzburg's new department store in Grand Rapids, Mich., which opened early this month, has some of the latest words in customer service. Its telephone order section, for instance, is one of the most modern in the state. The six order takers (above)

handle phoned-in inquiries and orders from customers over 12 special lines that flow to the section from the store's switchboard. Current advertising and other information are mounted on boards in front of them for ready reference.



there's a fussy side to steelmaking

Some steels are so sensitively compounded, so tricky to make, that they require special skill in handling. Making the "fussy" special purpose steels has been Crucible's business for more than fifty years.

For instance, let's look at the automobile you drive: Crucible supplies special steels for gears, axles, valves, valve tappets, tie rods, springs, bolts, forgings, steering knuckle — and even the trim. Crucible tool steels help press and form the body, while Crucible high speed steels help cut the super-precision parts for the motor and bearings.

The automobile is but one example of Crucible specialized knowledge at work. Multiply this by the needs of all Industry and you can readily see what a wealth of experience Crucible makes available to you. Use this experience freely; when you need special steels — call on us. CRUCIBLE STEEL COMPANY OF AMERICA, General Sales and Operating Offices, Oliver Building, P. O. Box 88, Pittsburgh 30, Pennsylvania.

CRUCIBLE

first name in special purpose steels

51 years of **Fine steelmaking**

Spaulding Works, Harrison, N.J. • Midland Works, Midland, Pa. • Park Works, Pittsburgh, Pa. • Spring Works, Pittsburgh, Pa.
National Drawn Works, East Liverpool, Ohio • Sanderson-Halcomb Works, Syracuse, N.Y. • Trent Tube Company, East Troy, Wisconsin

Merits Your Attention



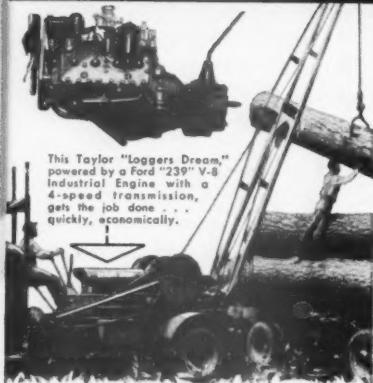
IMPACT. Clear and colorful... bright and brief... outdoor advertisements like this are seen and remembered! It's the best method for putting your product before people's eyes... making your sales message stick with them 'til they buy. GOA impact merits your im-

mediate attention. General Outdoor Advertising Co., 515 S. Loomis St., Chicago 7, Ill.

★Covers 1400 leading cities and towns



Ford Speeds Lumbering...



This Taylor "Loggers Dream," powered by a Ford "239" V-8 industrial engine with a 4-speed transmission, gets the job done quickly, economically.

Today the Lumber Industry is highly mechanized, thanks to portable, on-the-spot power. Here, as in many other applications, Ford Industrial Power has been a long-time favorite for dependable, low-cost operation.

Ford Industrial Engines and Power Units are available in five models, from 4-cylinder, 120-cu. in. displacement to V-8, 337-cu. in. displacement. Important applications of Ford Industrial Power, especially at this time of building for defense, include:

STAND-BY ELECTRIC POWER UNITS
SHOVELS • WINCHES • LOADERS
FIRE PUMPS AND ENGINES

INDUSTRIAL ENGINE DEPARTMENT
FORD MOTOR COMPANY
13030 Woodward Ave., Highland Park 3, Mich.

I am interested in Industrial Power for this application:

Send me new 1951 literature on Ford Industrial Power
Firm Name _____

Attention of _____

Street _____

City _____ Zone _____ State _____
(Please print)

04
**INDUSTRIAL ENGINES
AND POWER UNITS**

**YOUR JOB IS WELL-POWERED
WHEN IT'S FORD-POWERED**

10 years, that department has severed from it the businesses that now form chemical, air conditioning, electronics, and construction materials divisions of the company. The latest move marks the full disappearance of one of the oldest GE departments.

Johnson points out that R. A. Orr, named manager of the Vacuum Cleaner & Fan Division, is only 33 years old. He is the youngest division manager in the company and is in charge of the oldest appliance made by GE. His immediate superior is C. K. Rieger, general manager of the Traffic Appliance Dept., who is just 36.

• **No Surprise**—The appliance split is not a surprise move under the regime of Ralph J. Cordiner as president. He had quite a hand in the company's decentralization program even before he became president last December. That program calls for the breaking up of the company into segments that can be handled most economically and efficiently at the operating level.

Setting up the two new departments closely follows another policy decision announced recently. That is the company's plan to expand its major appliance activities at a giant Appliance Park somewhere in the Midwest. It will follow the pattern of Nela Park in Cleveland and Electronics Park at Syracuse.

MARKETING BRIEFS

Synthetic fabrics continue to be news. Palm Beach Co. will invade the year-round suit field with a wool, nylon, rayon fabric suit to sell for less than \$60. A. Sagner's Son, Inc., predicts that 30% of all men's suits priced under \$75 this fall will be of rayon. May nylon allotments for civilian apparel makers are expected to be cut about 30% from last year. It's the biggest allotment cut since Korea. And the armed services are all using synthetics now.

New York TV distributors appointed a committee to develop a set of standards for TV newspaper advertising. Object is to put an end to "misleading and wild" ads.

A rewrite of fair trade laws is a possibility if the Supreme Court rules against nonsigner clauses in the Schwengmann Bros. case (BW-Mar. 3 '51, p28). The nonsigner provision in state laws makes price contracts just as binding on dealers who haven't signed them as on those who have. If the court decides against them, fair traders will ask Congress to change the Miller-Tydings act to sanction the provision specifically.

Before you hooked that muskie

GAS did a lot of work for you

The plane which brought you. Aviation grew up with Gas which is used for heat-treating engine parts, brazing radiators, laminating the fuselage, for dozens of the other process-heating jobs in plane manufacturing.

The tackle you use. Many are the needs for Gas in sports equipment manufacturing. Your bamboo rod, the textile fibers in your line, the precision-made gears in your reel—these are some of the products in which Gas plays the versatile role of a heating medium for bonding, case-hardening, drying, lacquering, and many other processes.

The food you carry. The equipment which roasted your coffee, the ovens which baked your beans and brown bread, the cookers used in making your chocolate bars—these are just a few of the units in which food is processed by Gas heating for your nourishment and enjoyment.

The clothes you wear. A textile manufacturer probably used Gas to singe the fabric in your waterproof jacket, while Gas-fired dye vats applied the gay colors for your plaid shirt. The boots you wear have been vulcanized by heat—a process in which Gas plays an important part.



In your production-line, too! Before you took that fishing trip the manufacturers and processors of your equipment placed a lot of dependence on versatile Gas, the most versatile of heating mediums. The characteristics of Gas make it the preferred fuel for industrial heat-processing. Whenever there's a production-line heating operation to be done, please remember that your Gas Company Representative is available to show you the simplest, most economical way to do it—with Gas.



AMERICAN GAS ASSOCIATION
420 LEXINGTON AVENUE • NEW YORK 17, NEW YORK

REGIONS



"Its magnificent natural harbor is [one of] New York's greatest assets in the preservation of its commercial supremacy."

New York: A Magnificent Harbor . . .

New York is still the nation's leading port. But its lead is getting slimmer and slimmer. The reason it's slipping was concisely stated in the recent report of the Mayor's Joint Committee on Port Industry, from which the quotes under the accompanying pictures were taken. The report summed up:

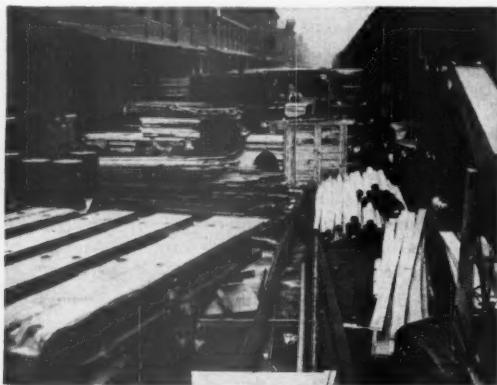
"Years of inactivity in port develop-

ment and of blindness to danger signals in waterfront operating costs are now taking their toll. Time is running out if New York is to avoid rating as a second-class port."

• **Congestion—High cost** is the major problem. The factors that make New York the highest-cost major port on the seaboard have long been recognized.

Way back in 1917 the city's dock commissioner cited some of them: high rents, high taxes and insurance rates, congestion at the pier stations and shipping yards, the wasteful method of handling and rehandling foodstuffs, the loss to the railroads in carrying goods across the bay and back again.

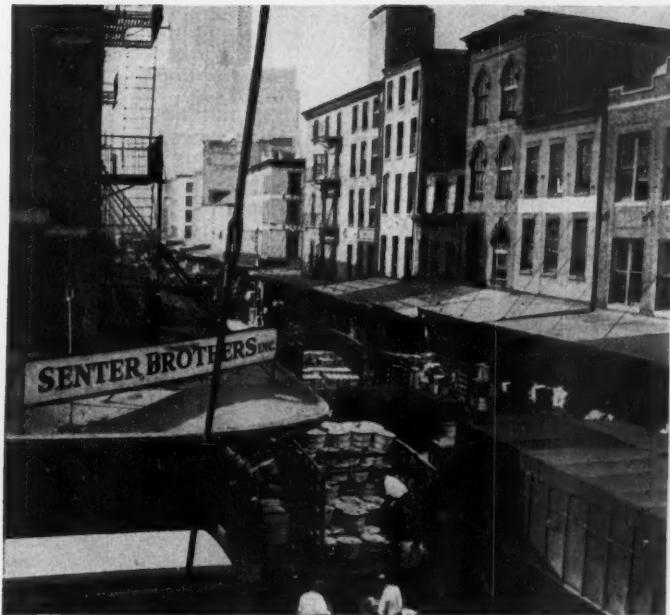
The recent report of the mayor's



"Many piers cannot accommodate 40-ft. trucks. Freight must be loaded and unloaded in the marginal street outside the piers."



"At many sections of the waterfront, space is available for only one line of traffic. The resulting congestion spells long delays."



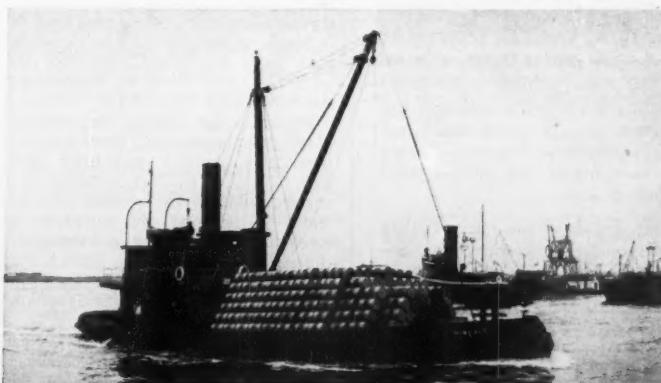
"Relief for traffic congestion is essential to the improvement of handling costs."

Its Port Is Slipping

committee breaks the cost element down into three main factors: (1) discriminatory and unreasonable pier rentals; (2) inadequate and antiquated pier facilities; and (3) strangling traffic congestion along the waterfront. It recommends an immediate change in the method by which the city computes its pier rental charges, adoption of a mas-

ter plan of modernization, and a new traffic study with "prompt adoption of appropriate measures."

It is not known whether the city will take any real action. Studies and recommendations have been made often in the past, with no important results. Three years ago, for example, two carefully thought-out master plans for re-



"Manhattan Island does not have a single pier connected to a trunk line railroad. Rail shipments of freight must be delivered to or received from piers by lighter."

He Keeps Production Rolling



Avoids Costly Down-time

This manufacturer knows that steel which is delivered to "exact specifications", will help his production flow smoothly.

Such steel reduces die damage and machine maintenance. It keeps down-time to the minimum. His production line operates at a profit.

Many other manufacturers like him buy their steel from a supply source who rigidly adheres to customer specifications. A warehouse service "Dependable as the Sun".

FREE!

Special Washington Service for Metal Products Manufacturers

We will provide you with the proper information about the new procurement procedures in the placing of Defense Orders.

Write, wire or phone
Solar Steel Corporation
219 Woodward Building
Washington 5, D. C.
Telephone—Executive 2141


SOLAR STEEL
CORPORATION

GENERAL OFFICES: UNION COMMERCE BLDG., CLEVELAND, OHIO
Warehouses In: Chicago • Cincinnati • Cleveland
Detroit • Philadelphia • River Rouge
Union, N. J.



LISSEN

...and you can hear a nation growing stronger

LISSEN to the humming of the tracks, as the trains approach. Today, the greatest railroad network in the world is busy carrying the vast bulk of all the things needed to rearm America.

LISSEN to the far-off whistle of a train as it speeds across a sleeping countryside. Round the clock, through fair weather and foul, 30,000 trains a day connect city with city . . . link farm and mine with furnace and factory, army camp and seaport.

LISSEN to the rhythmic thunder of the freight cars . . . the mighty roar of the locomotives. A billion-dollar-a-year railroad improvement program—with new locomotives and cars, new shops and terminals, improved tracks and signals—is helping today's average freight train carry *more* freight and carry it *faster* than ever before.

LISSEN to the sounds of the railroad. They tell you our country is growing stronger—every day!

Association of American Railroads

WASHINGTON 6, D. C.

Listen to THE RAILROAD HOUR every Monday evening on NBC.



"Another handicap is the unavailability of heavy lift equipment. Most of the waterfront must depend on floating derricks."

habilitation of the port were presented to the city (BW-May 29 '48, p40). One was the brainchild of the Port of New York Authority; the other came from World Trade Corp.

• **10-Year Plan**—The city turned down both plans. Instead, it adopted a 10-year plan of its own, to be carried out by the Dept. of Marine & Aviation. Among other things, the plan proposed expenditure of \$50-million over the 10 years for new construction. Aside from replacement of one burned-out pier, the city hasn't started any new construction under the plan, and none is currently scheduled. "The existing plan," says the recent committee report, "has been found to be unsound and unworkable."

It seems a bit startling that, in view of all its shortcomings, New York remains the country's outstanding port. The Norfolk (Va.) Port Authority discovered some of the reasons back in 1949. It surveyed 200 exporters in seven states that enjoy a freight-rate differential in favor of Norfolk as against New York and found that 67% of their exports moved through New York.

The principal advantages for New York were: (1) broad-scale, dependable steamship service to all ports in the world; (2) the country's leading banking facilities for foreign trade; and (3) a magnificent natural harbor.

**Pardon My
Ignorance**
by Pinet



*I thought A REFRactory MATERIAL was the unmanageable wallpaper
I once tried to hang . . . until I got the facts from Norton*

Now I Know:

A refractory is a material which is used industrially in furnaces, kilns, and ovens because it is resistant to heat, chemical reaction and furnace atmospheres. The more severe these conditions are, the greater the need for a special refractory. Norton special refractories are designed to meet the most rugged operating conditions. They are particularly useful in the higher temperature ranges.

More and more firms interested in increasing the temperature of their operations under varying conditions are calling on Norton, pioneers for 40 years in the engineering of special refractories. Bulletin 151 tells you why. For your free copy, contact your nearby Norton representative or write to NORTON COMPANY, New Bond St., Worcester 6, Mass.



LINED TO LAST AT 3250° F. Here you see a high frequency induction furnace lined with Norton Magnarite^{*} cement, a special refractory particularly useful in metal-melting. Other Norton specialties include Alundum^{*}, Crystolon^{*}, and Stabilized Zirconia^{*} refractories . . . each with characteristics all its own.



A WIDE VARIETY OF PRODUCTS is included in the Norton Refractory line: grain cement, brick, baffles, slabs (batts), boxes (saggers), tubes, laboratory ware, etc., for the metal-working, ceramic and chemical industries . . . all designed to help users of refractories to make better products at lower costs.

*Trade-Marks Reg. U. S. Pat. Off. and Foreign Countries

NORTON
TRADE MARK REG. U. S. PAT. OFF.

Making better products to make other products better

Special REFRactories

Canadian Representative
A. P. GREEN FIRE BRICK CO., Ltd.

TORONTO, ONTARIO

Bellows
"Controlled-Air-Power"
will help you get
MORE PRODUCTION

Now

perform these **ELEVEN**
press operations
Safer, Better
and 25% or More
FASTER!



Dial feeding parts with the Bellows
Rotary Work Feed Table gives up to 25%

or more greater production; (gains up to 100% are not unusual from users' reports.) Even inexperienced operators get this added production because safe dial feeding takes away the fear that unconsciously causes an operator to slow up.

With the air-powered Bellows Rotary Feed Table on the job, the operator loads at one station, unloads at another, while work goes on at a third station. (Standard tables will position 4, 6, 8, 12 or 24 stations.) Table and ram are electrically or mechanically synchronized. The Rotary Feed Table sets the production pace, and maintains it uniformly all day long. The operator rhythmically loads and unloads. Production soars.

FOR
FULL
DETAILS

For full details how you
can apply safe, "Controlled-
Air-Power" feeding of
parts to press rams to ob-
tain up to 25% or more
greater production, write

for your free copy of Bulletin T-80, and the
dial feeding Foto Facts File (installation
photographs, wiring diagrams, etc.).
Address: The Bellows Co., Department
BW451, Akron 9, Ohio.



1247

The Bellows Co.

ESTABLISHED 1891
AKRON 9, OHIO

100% Backing

Thanks to businessmen,
Columbus has citywide support
as it launches new multimillion-
dollar improvement program.

"Spending money gets money." Business leaders in Columbus, Ohio, believe that's just as true for a city as it is for a business. A city has to spend on maintenance and new equipment if it wants to stay prosperous.

That's why Columbus is getting ready to launch a new multimillion-dollar civic improvement program—its second since the end of World War II.

• **Voters Approve**—Late in 1945, Columbus voters approved, with votes to spare, bond issues for 16 projects, totaling \$24.7-million. Last week they O.K.'d four new issues for \$23.2-million. Not one proposal was rejected either time.

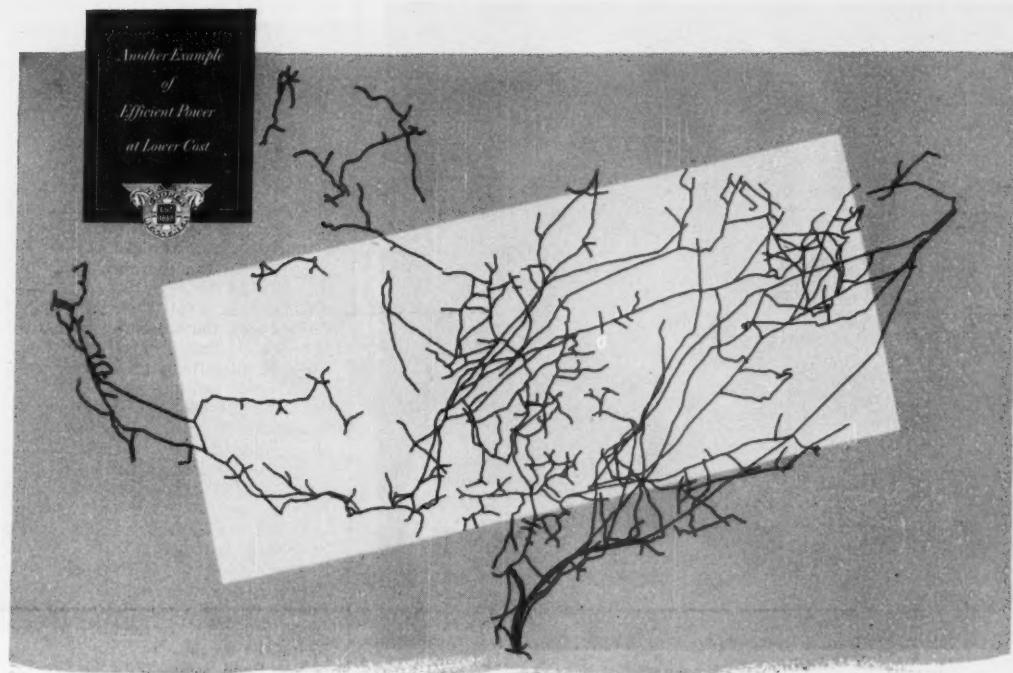
That's a pretty remarkable showing, in the light of the reluctance of voters all over the country to authorize such spending (BW-Nov. 18 '50, p118). It's pretty remarkable for Columbus, too. For some 20 years prior to 1945, the voters had turned thumbs down on every single bond issue and special levy submitted to them.

• **Committee Gets Credit**—Credit for the change goes almost entirely to the Columbus Metropolitan Committee, a group of businessmen and civic and community leaders who got together in the spring of 1945 to see what could be done about the down-at-heels condition Columbus was sliding into.

The original group included the late Simon Lazarus, of the department store family; Edgar T. Wolfe, banker and newspaper publisher; Herbert Lape, Sr., shoe manufacturer and president of the Chamber of Commerce; E. M. Tharp, utility executive; Paul McCarthy, then head of the Columbus Federation of Labor; and Paul Gingher, Columbus attorney.

• **\$80-Million Backlog**—During the war years, city, county, and school officials had set up a backlog of civic-improvement jobs they hoped to get rolling on once peace was declared. The total came to \$80-million—and the committee knew that was a lot more than the voters would possibly approve. So it got local officials to agree to concentrate on 16 projects costing \$24.7-million and to let the rest go.

• **Everybody Worked**—Once it got the proposals on the November ballot, the committee got to work. It chose Gingher as chairman and increased committee membership to more than 100—including representatives of organized labor and of the real estate interests,



DESIGN for BETTER LIVING ... now a bulwark of defense!

COME what may, this design is mighty important to America and to you. It shows our nation's coast-to-coast gas pipeline system—110 thousand miles of pipe, up to 30 inches in diameter, carrying up to 23 billion cubic feet of gas daily to keep America and American industry on the go. Still it isn't enough!

So new lines are being built, older ones expanded. To keep the gas moving, even at today's capacities, takes millions of engine horsepower, spread all along the lines—horsepower that is just as basic to our existence as the steel, machines and weapons the delivered gas helps produce.

Today, as for years past, Cooper-Bessemer builds gas-fueled compressor engines especially designed for pipeline power. And, thanks to recent Cooper-Bessemer developments, such as gas engine turbocharging, these huge units are actually conserving millions of feet of gas daily. Because they use far less gas than the best engines of former years, they're able to deliver more.

Still other Cooper-Bessemer developments pack more horsepower into less space for unprecedented conservation of the materials that go into manufacture,

foundations, piping and compressor buildings.

The gas industry is taking advantage of advances like these to do an adequate, more efficient job of supplying a fuel America can't get along without...especially now!

And, incidentally, it's advances like these that explain why so many users of heavy-duty power find that it pays to check on the *new* things being done by one of America's *oldest* engine builders.

The
Cooper-Bessemer
Corporation

MOUNT VERNON, OHIO

GROVE CITY, PA.

New York • Chicago • Washington • San Francisco • Los Angeles
• Houston • Dallas • Odessa • Seattle • Tulsa • St. Louis • Gloucester
• New Orleans • Shreveport



Friends for Life!



That's a man and his Zippo . . . the lighter that never fails . . . that always lights with a zip—even in wind or rain. That's why Zippo Lighters make ideal sales incentives, sales promotion premiums and business anniversary awards. Engraved with your company trade-mark, Zippo keeps goodwill glowing for you for years and years!

Send for Free Brochure. Get the FREE Zippo brochure explaining how you can have your company trade-mark or other message reproduced, in color, on Zippo Lighters at low cost. Shows many Zippo models with prices and discounts. Send the coupon today.

ZIPPO MANUFACTURING CO., Dept. BW-12
Bradford, Pa.
Please send your FREE brochure on Zippo
Goodwill gift ideas.

Company.....
Address.....
City..... State.....
Attention..... Title.....

ZIPPO
the one-zip windproof lighter

FREE SERVICE!
No one has ever paid a cent to
repair a Zippo!

who had led the fight against previous bond issues. Gingher convinced the real estate men that the higher property values created by the improvements would more than offset the necessary rise in taxes.

The committee raised funds to pay for newspaper and radio ads and campaign literature. Newspapers and radio stations got behind the drive because they were all represented on the committee—as was just about every civic or community organization of any size.

At the election, no issue got less than 67% of the votes.

• **Committee Kept Promises**—During the campaign the committee made two promises: (1) that no more bond issues would be submitted for five more years; and (2) that real estate taxes wouldn't rise above \$20 per \$1,000 during those five years. It kept both promises. It insisted that the new bonds be issued, as far as possible, to coincide with maturity of old issues, to avoid any sudden surge in the tax rate. It sponsored the city's $\frac{1}{2}\%$ income tax, which the voters approved in 1948 (BW-Jun.19'48,p36) and which helped take the load off real estate. The construction boom and a reassessment of real estate added to tax revenues without hiking the tax rate.

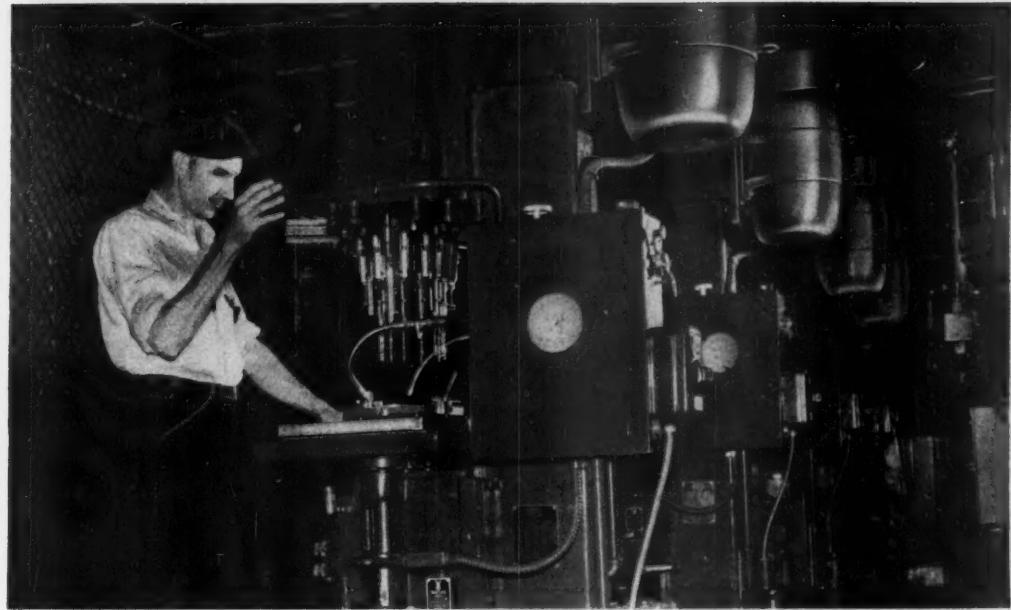
• **New Bond Issues**—With the five-year period ended, the committee early this year got behind four new bond issues: \$11.4-million for schools (both a city and a county bond issue were involved); \$6.8-million for expansion of the municipal airport (the bond issue was for half of this; the other half will be put up by the federal government); and a \$59-million system of expressways (\$8.3-million from bonds, the rest from the federal and state governments).

There was little organized opposition this time. But several small rebellions were squashed through conferences and personal appeals.

The committee's promise this time was that the bonds wouldn't raise the tax rate by more than 83¢ per \$1,000. And the voters obviously trusted them.

• **Top Dog**—The committee has no legal standing. But it does decide which projects will have its blessing. And that's where its strength lies. Though it's powerless to prevent unapproved projects from being placed on the ballot, chances of passage without its approval are so remote that such projects are either deferred or abandoned altogether.

One of the committee's toughest problems is to pacify pressure groups with pet projects. Its solution: Before it will approve any project, the sponsors must agree to support all other approved projects. Gingher points out that before the committee was formed each group would vote for its own project and against all the others—and nothing would pass.



Howell totally enclosed motors power these multiple drill spindles in the plant of a leading auto maker.

HOW MUCH ARE ELECTRIC MOTORS WORTH?



Howell Type K Motor. Offers constant performance in the presence of dirt, dust, fumes and moisture. Sizes from 3 to 150 H.P. at 1800 R.P.M. Either vertical or horizontal mounting.

The actual cost of the motors you see pictured here amounts to hundreds of dollars.

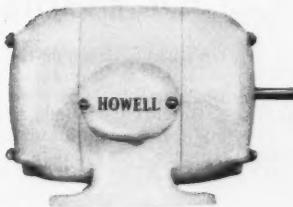
But their true worth, in terms of supplying the power for these multiple drill spindles to turn out finished parts, runs into thousands.

It's tough applications like this which prove the real value of Howell Industrial Type Motors. For your jobs, Howell serves three ways: (1) by engineering electric motors to your job; (2) by furnishing motors of the highest quality; (3) by serving you after the sale.

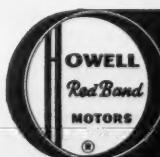
May we apply our facilities and engineering ability to your problems?

HOWELL ELECTRIC MOTORS COMPANY

Howell, Michigan



Howell Sanitary Motors meet the most exacting standards of the dairy and food industries. They contain no pockets, cracks, or crevices. Available for vertical or horizontal mounting.



HOWELL MOTORS

HOWELL ELECTRIC MOTORS CO., HOWELL, MICH.

Precision-built industrial motors since 1915

Need Help to improve production and quality

Here it is...

PRECISION MEASURING AND CLASSIFYING

- Quality control gages
- Indicating comparators
- Production and toolroom instruments
- Multiple dimension production gages
- Automatic gaging machines
- Standard precision gages
- Special gaging equipment
- X-Ray continuous measurement gages

MACHINE TOOLS

- Gear burring, burnishing and chamfering machines
- Micro-Form grinders
- Crushtrus grinding equipment
- Thread and form grinders
- Automatic welders
- Special machine tools

THREADING TOOLS

- Solid taps
- Collapsible taps
- Self-opening dieheads
- Thread chasers

CONTRACT SERVICES

- Engineering and design
- Dies of all sizes
- Tooling
- Contract manufacturing
- Forms, threads, precision parts
- Special production machines

Call, wire or write for a qualified Sheffield engineer to help select equipment which best meets your expanded requirements. Address **CUSTOMER CONSULTATION SERVICE.**



the ***Sheffield***
corporation
Dayton 1, Ohio, U.S.A.



"ON YOUR LEFT . . ." Morton Kline, past president, Mercer County Realty Board, explains fine points of county to realtors, guests of Mercer's Industrial Commission.



HUDDLE: Mrs. Mary Roebling, board chairman, Trenton Trust Co., holds private confab.

Planned Parenthood for Plants

A steel mill is a magnet. It attracts steel. Start with one big plant, and you can pretty well count on getting a bunch of others—whether you want them or not.

Mercer County, N. J., is feeling such a pull. The magnet in the case is the new U. S. Steel mill going up at Morrisville, Pa., just south of Trenton across the Delaware River. Sooner or later Big Steel's plant will start drawing steel-using and steel-processing industry into Mercer. And Mercer has its own

ideas on how it wants to develop.

- **Off for the Day**—That's why, a couple of weeks ago, some 50 businessmen, members of the Society of Industrial Realtors, clambered aboard chartered buses at Trenton on a kind of busman's holiday. As guests of the Mercer County Industrial Commission, they were out to see the sights of Mercer—particularly the sites the county had to offer to prospective new industry.
- **More Baskets**—Host-in-chief for the day was Edward A. Thorne, county



Could you wash 112 sheep in an hour?

With wool on the hoof, the task might baffle Paul Bunyan. But with shorn fleeces, a carpetmaker does the job handily in 1800-gallon scouring bowls. The bath washes out the dirt and wool grease — so that the colorful carpet in your living room is dyed evenly.

With their original scouring formula, this manufacturer got out most of the wool grease. But they wanted even finer carpeting. They called in Wyandotte and a new formulation was built around the versatile synthetic detergent, Krelon D. The new solution lowered the

grease left in the wool to the desired 6/10 of one per cent — so it took dyes perfectly — and saved 22 per cent in raw material costs.

Because of its unique wetting action and detergent qualities, Krelon is also used widely in household and industrial cleaning products. It is employed, too, in processing leather, rubber, coal and insecticides. Wyandotte chemicals may be able to cut your costs and improve your products. A consultation is confidential and without obligation.

"Krelon" Reg. U. S. Pat. Off.



"High-light" Krelon, loaded here, is white in color and lacks odor. Its free-flowing flakes or powder guarantees detergency— even in hard water. Contains a minimum of 40 per cent active organic agent.

VAST RESOURCES IN RAW MATERIALS

Wyandotte is one of the world's major producers of organic and inorganic chemicals.

- UNINTERRUPTED PRODUCTION. Ownership of limestone quarries, coal mines and salt deposits helps Wyandotte maintain high uniform production.
- SIZABLE SAVINGS. Alert Research, Development and Technical Service mean customer benefits through better products and processing economies.
- LOWER SHIPPING COSTS VIA RAIL, WATER OR TRUCK. Wyandotte plants are strategically located at the transportation hub of the Great Lakes.



Wyandotte

CHEMICALS

REG. U. S. PAT. OFF.

Wyandotte, Michigan
Offices in Principal Cities

- ORGANICS
- INORGANICS
- SPECIALIZED CLEANING PRODUCTS

HERE AT LAST

A Flame-resistant Thermoplastic
U. S. ROYALITE the sensation of the plastics field



A blow torch that develops tremendous heat is directed on a square of flame-resistant U. S. Royalite.



After being subjected to this intense heat, flame-resistant U. S. Royalite has not sustained combustion.

If you've been waiting for a flame-resistant plastic, it's here . . . it's *U. S. Royalite*! This great material makes possible countless new developments in design and construction, lets plastic fabricators do things never possible before.

Royalite is versatile, light in weight, and more efficient than the materials it replaces. This great thermoplastic can be sawed, sheared, sanded, punched, nailed, bolted, riveted, sewed and cemented. It can be formed on standard equipment with conventional techniques.

SEE NEXT PAGE FOR LIST OF
U. S. ROYALITE FABRICATORS

ROYALITE IS

- ★ Flame-resistant
- ★ Lightweight
- ★ Unbreakable, non-splintering
- ★ Non-warping, non-corrosive
- ★ Waterproof, stainproof
- ★ Not affected by oils, most acids, alkalies
- ★ Comes in different colors



UNITED STATES RUBBER COMPANY

2638 NORTH PULASKI ROAD • CHICAGO 39, ILLINOIS



KEY TO CITY: Hopewell's Mayor Williamson (left) greets Commission Director Thorne, who fathered development program.



"THAT'S A SWELL SITE." Tourists speculate on prospects from bus window.



"TASTES GOOD." Industrial sites yield to soup during lunch hour on the train.

freeholder and director of the commission. Thorne explains the problem this way: The county doesn't have to sell to steel. The mills and fabrication plants will come anyway. What's worrying the commission is that all the region's eggs may wind up in steel's basket.

So the commission is concentrating



CONSULT THESE EXPERIENCED FABRICATORS OF ROYALITE

CALIFORNIA

Artisan Engineering & Mfg. Co., Inc., 5037 W. Jefferson Blvd., Los Angeles 16
Horace L. Blackman Co., 287 So. Robertson Blvd., Beverly Hills
General Plastics Corp., 723 W. Broadway, Glendale 4
Engineering Plastics Co., 1475 El Mirador Dr., Pasadena 3
National Plastics Industries, 425 Divisadero St., San Francisco
Swedlow Plastics Co., 5527 District Blvd., Los Angeles 22
Technical Reproductions, 5526 Cleon St., N. Hollywood

COLORADO

Pikes Peak Plastic, 5 W. Cucharras St., Colorado Springs
Plasticraft Co., 2806 N. Speer Blvd., Denver

CONNECTICUT

Colt's Mfg., Hartford 15

FLORIDA

Plastics Design & Mfg. Co., Box 61, Tallahassee

GEORGIA

Gladwin Plastics, 542 Courtland St., N.E., Atlanta

ILLINOIS

Arrem Plastic, 1539 N. Throop St., Chicago 22
Associated Plastics Fabricators, 164 N. May St., Chicago 7
J. B. Carroll Company, Corner Carroll and Albany Avenues, Chicago
Cortland Industries, Inc., 4545 W. Cortland St., Chicago 39
Neo Products Co., 2534-38 S. Kedzie Ave., Chicago 23
O-Lin Products, 3755 Kedzie Avenue, Chicago 18
Precision Plastic Products Inc., 628 W. Lake St., Chicago 6

INDIANA

General Plastics Corp., 1400 N. Washington, Marion

MARYLAND

Fawn Plastics Co., 2902 Hamilton Ave., Baltimore 14

MICHIGAN

Cadillac Plastic Co., 651 W. Baltimore, Detroit 2
Imperial Industries, 4435 Walker Ave., Wayne Kliss Mfg. Co., 50 Cottage Grove S.W., Grand Rapids 2
Reynolds Plastics, Inc., 3445 W. Fort St., Detroit
Fabri-Kal, 242 East Kalamazoo Avenue, Kalamazoo
Woodall Industries Inc., 7565 E. McNichols Rd., Detroit 34

The United States Rubber Company at 2638 North Pulaski Road, Chicago, Illinois, has complete Engineering, Designing, and Styling Departments to assist fabricators on the technique to employ, and in the art of fabricating most efficiently with ROYALITE.

MINNESOTA

T. O. Plastics, 58th & Longfellow, Minneapolis
Plastics, Inc., Chestnut & Ryan Sts., St. Paul 2

MISSOURI

Regal Plastics Co., 710 Main St., Kansas City

NEBRASKA

Omaha Plastics Co., 1470 S. 16th St., Omaha 9

NEW JERSEY

Silcocks-Miller Co., 10 W. Parker Ave., Maplewood Stokes Molded Products, Inc., Taylor St. at Webster, Trenton 4

Thermacote Co., 320 Jefferson St., Newark 5
Van Beek Industries, 28 Park St., Orange

NEW YORK

Bassons Molded Products, 1424 W. Farms Rd., New York 60 Curbell Inc., 1700 Elmwood Ave., Buffalo 7

Dual Fabricators Corp., 808 Driggs Ave., Brooklyn 11 Dura Plastics Inc., 1 W. 34th St., New York 1

Durable Formed Products, Inc., 329 Canal St., New York 13 Mastercraft Plastics Co., Inc., 95-32 150th St., Jamaica 4 Steiner Plastics Mfg. Co., 47-30 33rd St., Long Island City 1

OHIO

Fabri-Form Co., Box 36, Cambridge The Baxter Company, 15 E. 2nd Street, Cincinnati

PENNSYLVANIA

Halsen Mfg. Co., 5919 Webster St., Philadelphia Lee Plastics A and Lippincott St., Philadelphia 34 Pearson-Berlinghof, Inc., 18 North State Street, Newton, Pennsylvania

The Bell Plastics Co., Inc., 600 Heinz Street, Pittsburgh 12

TENNESSEE

Plasti-Line, Inc., Jacksboro & Broadway, Knoxville 18

TEXAS

Plastic Engineering Co., 2101 69th St., Houston 11 Plastic Products of Texas, 3319 Love Field Dr., Dallas

WASHINGTON

K. B. Plastics, Inc., 1817 So. 1st St., Yakima Mason Plastics Company, 1121 Westlake North, Seattle

WISCONSIN

Midland Plastics Inc., 227 N. Water St., Milwaukee 2

Saves \$700 in one hour— by RADIO!



"Radio control saves us money every day we work," says Lee Blades of the Blades Construction Company, Hornell, New York. "For example, when a paver broke down on a recent road job, we saved \$700 in one hour by transmitting repair instructions by radio. Our jobs fan out in a 100-mile radius from headquarters, with crews and equipment spread over six counties."

Cut communication delay and you cut costs—in materials, in production, in manpower. If your business involves wide-area operations where you need tight control, talk it over with G-E 2-way radio engineers—at no obligation. To get action, mail the coupon today.



Dispatcher at headquarters takes radio message from Bob Blades (top photo) supervising ditching job on highway 20 miles away. Radio cuts time lag, keeps equipment busy.

CIVIL DEFENSE—For plant protection and community service, tie into your city's 2-way radio emergency network at little cost. Ask the G-E Electronics Department office near you for full details.

HOW MUCH IS Instant Communication WORTH TO YOUR BUSINESS?

General Electric Company, Section 141-21
Electronics Park, Syracuse, New York.

Please send me FREE INFORMATION KIT on G-E
2-way radio communication equipment.

NAME

TYPE OF BUSINESS

ADDRESS

CITY..... STATE.....



GENERAL ELECTRIC

on light industry, medium industry—candy, chemicals, research, pharmaceuticals—the kind of thing that would fit into a partly industrial, partly agricultural and residential area.

- **Round and Round**—Hosts and guests made a day of it. By buses and trains they slowly circled the county. The realtors studied their "texts," a booklet that showed what Mercer had to offer. Town by town, it showed the population, tax rates, facilities, and specifications of land and plants on the route.

The 28-man commission was primed for any questions the realtors might shoot at it. Its membership is made up of the county's seven freeholders (or county commissioners) plus top officers of the townships, plus representatives of financial, employment, power, and labor groups.

- **Goals**—Massive (350 lb.) and broadening under his Homburg, Thorne sums up his goals: "Broaden the tax base. Deepen the Delaware. Diversify."

The second project is dear to Mercer's heart—to extend the present deepening of the Delaware so that ocean-going vessels can come up to Trenton. If Trenton gets this, said Aime Carkhuff, SIR president, it would rival Pittsburgh.

- **Assets**—Delaware deep or Delaware shallow, Mercer feels it has a lot to offer. Geography, for one thing; it's about midway between Philadelphia and New York. Plenty of water, electric power, the Pennsylvania and Reading R.R.'s, highways.

The labor supply would present no great problem, reported James Sweeney, subregional director of the CIO, and a commission member. "If there's not enough labor here," Sweeney said, "I can pull in 1,000 workers from the Pennsylvania mining country. Five thousand," he amended.

But you might not have to go to the coal mines. Pottery imports have hit one of Mercer's major industries, left some labor slack. With the coming of steel families, there will be women who wouldn't go for a shift at the mill but might welcome lighter jobs.

- **Eight in a Year**—Though the Industrial Commission was born only in March, 1950, it already counts eight companies to its credit, with a total annual payroll of over \$1-million. Some of them, like Olsen Mfg. Co., furnace maker from Elyria, Ohio, are newcomers; others are old inhabitants who had decided to leave but changed their minds under commission persuasion.

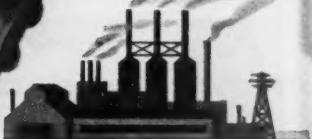
- **Good Idea**—The realtors seemed to think the tour was a good idea.

"All this stress on decentralization for security makes companies think about breaking up operations," realtor Frank Brown commented. "Maybe one will ask me if I know a place for a plant. And I'll think of this place," and waved his hand at the window.

HELPING INDUSTRY MAINTAIN ITS DRIVE

The nearest thing to perpetual motion is Industrial America... always on the lookout for ways to do the job better, faster, cheaper.

If you have plans for expansion, modernization or change in production methods they can perhaps be furthered through the use of Blaw-Knox products or its engineering services over a wide field.



OPERATING AND SALES DIVISIONS—

- BLAW-KNOX
- BLAW-KNOX SPRINKLER*
- BUFOVAK EQUIPMENT
- BUFOVAK MIDWEST CO.
- CHEMICAL PLANTS*
- THE FOOTE COMPANY, INC.**
- LEWIS FOUNDRY & MACHINE
- NATIONAL ALLOY STEEL
- PITTSBURGH ROLLS
- POWER PIPING*
- UNION STEEL CASTINGS

*Operates as a division of Blaw-Knox Construction Company
**Subsidiary of Blaw-Knox Company

EXECUTIVE OFFICE—Blaw-Knox Company, 2104 Farmers Bank Building, Pittsburgh 22, Pa.

OFFICES IN PRINCIPAL CITIES—Export Department, 342 Madison Avenue, New York 17, New York. Distributors and representatives throughout the world.

TRANSPORTATION



COMING ON to the highway, drivers speed up. But monotonous driving leads to . . .



ACCIDENTS, which cause 10 times as much

Wrecks Cool Enthusiasm for

Not too long from now, provided a national emergency doesn't interfere, you will be able to drive from Portland, Me., to Toledo, Ohio, on high-speed turnpikes all the way (map).

A couple of years ago, this news would have brought unmixed satisfaction to trucking companies. They have campaigned for years for a system of toll roads to relieve the traffic tangle on

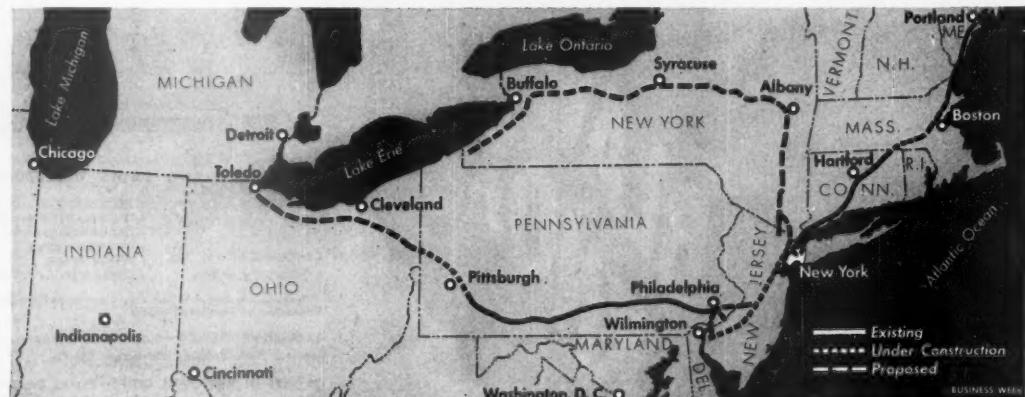
East-West highways. But now that they are about to get it, they are beginning to worry.

Unless the new toll roads are better in design and administration than the present Pennsylvania Turnpike, trucking companies may hesitate to use them at all. For on the basis of accident statistics, the 160-mi. stretch of divided highway across the Alleghanies to Pitts-

burgh is one of the most dangerous routes in the country.

• **Casualty Reports**—Between October, 1940, when the Pennsylvania Turnpike was opened to traffic, and the first of this year, there have been 4,471 accidents on the road. 245 people have been killed, 3,087 injured. Property damage: more than \$4.5-million.

Last year was the worst yet: In 1949



TURNPIKE SYSTEMS

Linking toll roads already in use with those under construction and proposed will provide a continuous strip of divided highway from Portland, Me., to Toledo, Ohio.



property damage as crackups on other roads.

Toll Roads

accidents, 59 people were killed, 624 injured, and property damage totaled \$1.2-million. The amount of property damage per reported accident is 10 times the average for all other highways in the country.

• **Truckers Worry**—The two groups that are most concerned about this rapidly rising accident rate are trucking companies and automotive insurance companies. The Pennsylvania Turnpike is a popular route for East-West trucking traffic. Of the 390-million mi. of travel on the highway in 1949, trucks accounted for 116-million mi. And of the 609 accidents on the route in the same year, trucks were involved in 277. Owners of big truck fleets are questioning whether time and maintenance savings are worth the risk involved in using the turnpike. One company, Shirk's Motor Freight, Inc., Lancaster, Pa., has pulled its trucks off the turnpike entirely.

Truck insurers, too, are vitally interested. C. E. Preslan & Co., Inc., of Cleveland, one of the largest insurers of trucking companies, is trying to get at the root of the trouble in its own way. Last January it employed O. D. Shipley, a former member of the Pennsylvania Turnpike Commission and safety director for the Pennsylvania

SOLID COMFORT IN SOLID STEEL!



Furniture by John B. Salterini Co., New York

So light, so comfortable, you'll have to look twice to see that it's solid steel: this garden furniture fabricated from steel bar, with all surface elements—plane and curved—formed of Wheeling ExM. Not woven, not welded, but pierced and stretched from a single plate, Wheeling ExM is stronger, lighter! It's your material of a thousand-and-one uses: solid steel you can see through!



SOLID STEEL
YOU CAN SEE
THROUGH

**-IT'S
WHEELING
EXPANDED METAL!**



**WHEELING CORRUGATING COMPANY
WHEELING, W. VA.**

Atlanta
Louisville

Boston
Minneapolis

Buffalo
New Orleans

Chicago
New York

Columbus
Philadelphia

Baltimore
Richmond

Kansas City
St. Louis

**It pays to use your
custom molder's know-how
and proof is clear on a million TV screens**

No. 26 in a Series on Plastics Skill at Work...



EIGHT HALF-SPOOLS of Durez phenolic per "shot" are produced by custom molder. These meet rigid requirements including very thin walls, dimensional exactness, freedom from warping, high insulating value, and resistance to heat.

● "Riding" the neck of the modern cathode-ray TV picture tube is a deflecting yoke . . . deflecting coils and magnetic core . . . which guides the electron stream that is transformed into glowing video pictures on the screen face of the tube.

The yoke is the extremely critical component that determines the uniform brightness of the picture, its symmetry, and freedom from exaggeration and distortion. Its elements must be supported in an exact relationship, and insulated to withstand high voltage.

This is the job of the spool molded of Durez phenolic plastic . . . another example of the custom molder's know-how in meeting severe requirements.

ONE RIM OF SPOOL serves as terminal board for 8 terminals, and supports small resistors and capacitors. Molded-in interlocking projections facilitate assembly of the 2-piece spool. The use of molded half-spools made it possible to replace approximately eight parts formerly used.

PROJECT: Deflecting-yoke spool for TV picture tubes

CUSTOMER: RCA Victor Division,
Radio Corporation of America

MOLDER: Shaw Insulator Co.

MATERIAL: Durez black general-purpose phenolic plastic

with parts that simplify assembly. Supplanting a stapled cardboard assembly, the molded Durez spools have contributed to the dramatic growth of the television industry by making possible a distinct improvement in a vital component in more than a million sets.

Your custom molder's know-how, plus the famous versatility of Durez phenolics, is a hard-to-beat team when you want the best value you can get for your plastics dollar.

Ready with skilled counsel is your Durez technician, backed by over 25 years of specialized experience.

Write Durez Plastics & Chemicals, Inc., 4004 Walck Road, North Tonawanda, New York.



PHENOLIC PLASTICS THAT FIT THE JOB

Motor Truck Assn. His job is to study the hazards of trucking on the turnpike and instruct Preslan's clients on safe driving on the road.

• **Speed**—Shipley pins the cause of 95% of the accidents on the turnpike on two things—driving at excessive speed, and falling asleep or being hypnotized at the wheel.

With other safety engineers, Shipley has conducted tests that prove that no person in any vehicle on wheels—regardless of its condition—can safely go over 70 mph. The speed limit on the turnpike is 50 mph. for heavy trucks and 70 mph. for all other vehicles. However, these speed laws are apt to be liberally interpreted on the road. For one thing, police officers themselves tend to permit a 10% leeway in enforcing speed limits. For another, there are only 22 police officers assigned to the job of patrolling the 160 mi. of turnpike around the clock.

There's a measure before the Pennsylvania legislature now to lower the speed limits on the turnpike to a top of 60 mph. for cars and 45 mph. for heavy trucks. The measure is backed by the Pennsylvania Turnpike Safety Committee, a group composed largely of representatives of trucking companies that use the road.

• **Sleeping at the Wheel**—The problem of falling asleep at the wheel, however, is not so easy to solve. In 1949 there were 50 instances of truck drivers falling asleep at the wheel and piling off the road.

Shipley's research on why drivers fall asleep has been hampered by the fact that the drivers who might have the most illuminating answers are usually killed in their crash. But it has been pretty well proved that bad eating and sleeping habits and the monotonous quality of the road are the biggest contributing factors.

Shipley made careful checks of drivers' performance after meal stops on the turnpike. He found that their driving was normal for the first 20 minutes, but for the next hour the drivers became unsteady and weaved on the highway.

He also found that many drivers failed to use the eight-hour rest period that most companies require them to take at Bedford, Pa., the midway point on the turnpike. To correct this, there's a movement afoot now among several trucking companies to establish jointly a dormitory where their truck drivers would be checked in and out by a supervisor.

• **Hypnosis**—But probably more dangerous than either bad sleeping or bad eating habits is what Shipley calls the hypnotic effect of turnpike driving. There are no traffic lights to stop for, no pedestrians to watch for, and no variations in traffic patterns to keep



Port Scene at
New Orleans

264 threads in this web

There are 264 ways to ship your goods in the Middle South states of Arkansas, Louisiana and Mississippi—75 barge and 94 truck lines, 31 railways, 54 steamship and 10 airlines. This interconnected web of routes makes it easy for industries in the Middle South to distribute their products to regional and national markets, and to world markets via New Orleans. . . . Private business initiative built, and is expanding, transportation facilities to meet the needs of old and new industries.

Many industries have found the right combination of advantages in the Middle South—access to raw materials of farm, forest, and mine, growing markets, and reserves of natural gas and oil. . . . Based on these advantages, *industry has confidence in the future of the Middle South*. Increasing plant investments throughout the region are proof of this confidence. Write today for more data about the Middle South.

For further information write

THE MIDDLE SOUTH

Area Office, 211 INTERNATIONAL TRADE MART, New Orleans, Louisiana or any of these business-managed, tax-paying electric and gas service companies:

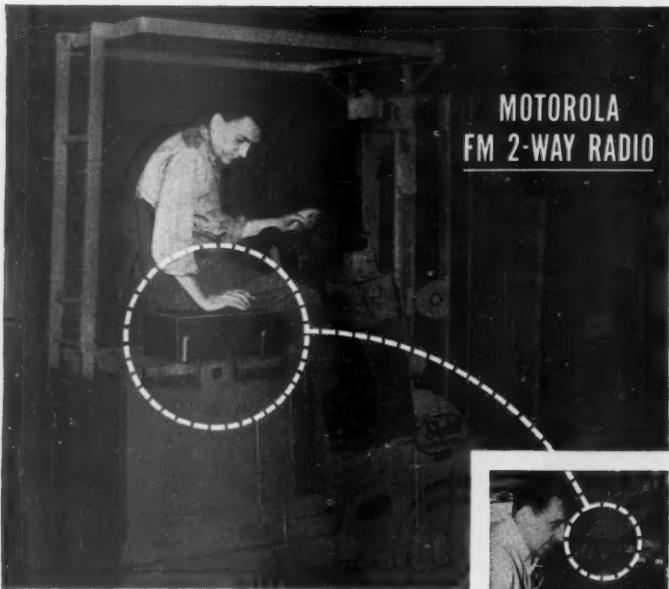
ARKANSAS POWER & LIGHT COMPANY
Pine Bluff, Ark.

LOUISIANA POWER & LIGHT COMPANY
New Orleans 14, La.

MISSISSIPPI POWER & LIGHT COMPANY
Jackson 113, Miss.

NEW ORLEANS PUBLIC SERVICE INC.
New Orleans 9, La.





MOTOROLA FM 2-WAY RADIO

SPEEDS MATERIALS CUTS WASTE, CONFUSION

Johnson & Johnson keeps a fleet of industrial trucks busy carrying payloads in its huge New Jersey shipping center

Deadhead loads, idle time, general confusion, plus considerable paperwork were quickly eliminated by the far-sighted management of Johnson & Johnson's new 207,000 sq. ft. shipping center at Metuchen, N.J. Their electric fork trucks were equipped with versatile Motorola FM 2-way radio! Men, equipment and merchandise were dispatched with exceptional speed...with greater control, efficiency and economy than ever before!

MOTOROLA 2-WAY RADIO CAN SPEED MATERIALS HANDLING FOR YOU, TOO!

Only Motorola 2-way radio gives you guaranteed peak performance, plus freedom from obsolescence...for only Motorola offers performance-tested equipment that incorporates the exclusive "years ahead" engineering developments of its famed research laboratories. Investigate today how a Motorola system can aid you in your specific operation.



←
Uni-Channel SENSI-CON Dispatcher
for use as portable base station,
mobile dash or trunk mount.

→
HANDIE-TALKIE® Portable 2-way
Radio houses a complete FM trans-
mitter-receiver in a single compact
unit.

*Trade Mark, Motorola Inc.



Write for FREE information booklet

Motorola Inc.

COMMUNICATIONS & ELECTRONICS DIVISION 4545 AUGUSTA BLVD., CHICAGO 51, ILL.

COMPLETE INDUSTRIAL RADIO COMMUNICATIONS... SPECIALISTS IN MOBILE RADIO FOR 22 YEARS

drivers alert. Nothing but the thump, thump, thump under the wheels by day, the flick, flick, flick of reflectors, or "cat eyes," along the side of the road by night. This is what produces hypnosis.

• **Construction Faults**—Shipley's study also showed up several construction faults in what was once claimed to be an almost accidentproof highway. The strip between east- and westbound lanes of the turnpike is only 10 ft. wide in many places. It should be three to four times that wide in order to give a driver more time to get his vehicle under control before it crossed into the opposite strip in the face of on-coming traffic. Shrubbery should be placed in the center of the medial strip to cut down headlight glare.

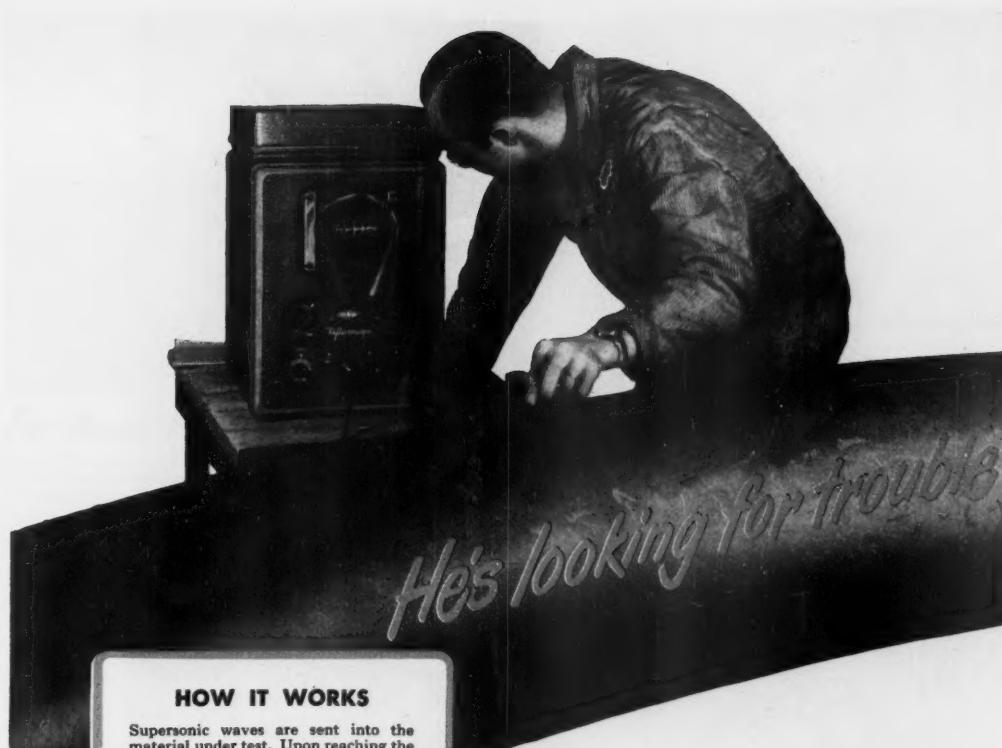
Shipley thinks that a 4-in. white strip painted on the concrete next to the medial strip would serve as a warning to drivers that they were about to go off the slab.

Safety engineers who have studied the turnpike see now where better advantage could have been taken of the natural terrain when the road was laid out. For instance, it would have been possible to avoid skirting the north sides of mountains, which tend to hold ice and snow for long periods during the winter.



Sawyer's Solicitor

C. Dickerman Williams, new Solicitor of the U.S. Dept. of Commerce, is a Republican, a businessman, a lawyer. Former general counsel of the American Locomotive Co. and member of the board of directors of the American Civil Liberties Union, he is without experience in Washington politics. His only previous federal post was as law clerk to U.S. Supreme Court Justice Taft in 1924-1925.



HOW IT WORKS

Supersonic waves are sent into the material under test. Upon reaching the other side, or upon reflection by a discontinuity, the waves return to their source and are then converted into a high-frequency potential. This potential is amplified by electronic circuits and projected upon the screen of a cathode-ray tube where they may be seen and examined.



Pulse pattern, showing the initial pattern at the extreme left and the reflection from the opposite side at the extreme right. The sweep line indicates no defects.



A typical indication of a defect is illustrated here. By means of calibration, it is now possible to determine both the exact position of the flaw, as well as its size.

Non-destructive Supersonic testing is another in a constant succession of new techniques employed by Grinnell to provide prefabricated piping that is safe and dependable.

Grinnell's ultra modern electronic testing can be relied upon to detect hidden flaws in pipe materials, to check unerringly the quality of welds where it picks up flaws not revealed by X-ray and gamma ray inspection. In examining bends, this method of testing can measure the degree to which bent pipe thins on the outside and thickens on the inside of the bend, assuring full specified thickness in high temperature, high pressure work.

Utilization of modern equipment of this type is one of many sound reasons why it pays to call in Grinnell "Whenever Piping Is Involved". Grinnell Company, Inc., Providence, R. I. Branch warehouses in principal cities.

GRINNELL

WHENEVER PIPING IS INVOLVED

pipe and tube fittings • welding fittings • engineered pipe hangers and supports • Thermolier unit heaters • valves
 Grinnell-Saunders diaphragm valves • pipe • prefabricated piping • plumbing and heating specialties • water works supplies
 industrial supplies • Grinnell automatic sprinkler fire protection systems • Amco humidification and cooling systems





For People On The Go

products in Plaxpak bottles are the answer to better living out of a suitcase. Almost as light as a puff of smoke, Plaxpak bottles help take the "lug" out of luggage. Unbreakable—they bounce but don't break—these amazing bottles are immune to the accidents and abuses of travel. They can be thrown or squashed into bags without fear or favor. No wonder products in Plaxpak bottles are applauded—and bought—by an ever growing number of travelers.

Only the best is

OTHER EMHART PRODUCTS INCLUDE:



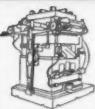
AUTOMATIC PACKAGING EQUIPMENT

STANDARD-KNAPP
Division of Emhart Mfg. Co.
PORTLAND, CONNECTICUT



GLASS MAKING MACHINES

HARTFORD-EMPIRE CO.
Division of Emhart Mfg. Co.
HARTFORD 2, CONNECTICUT



HIGH SPEED AUTOMATIC PRESSES

HENRY & WRIGHT
Division of Emhart Mfg. Co.
HARTFORD 5, CONNECTICUT



PREMIUM QUALITY STAMPING PRESSES

THE V & O PRESS CO.
Division of Emhart Mfg. Co.
HUDSON, NEW YORK



For Beautiful Hair

Breck supplies three famous shampoos in Plaxpak bottles with a diamond point finish. Users like the bottle because it won't break; neither will it chip nor mar porcelain surfaces.



For New Economies

in display packaging, Paris Box Co. is making transparent set-up boxes of Plax Polyflex*. Corners are formed without adhesives or heat-sealing. High strength of Polyflex* permits use of light gauges.

good enough

HELPFUL PLAX LITERATURE

Catalogs on Plaxpak bottles and other Plax products are available on request. Also available is a booklet "Fabrication of Polystyrene."



Plax blow-molded products are made under the following U. S. Pats.: 2128239, 2175053, 2175054, 2230190, 2260750, 2283751, 2349176, 2349177, 2349178, 2230188. *Reg. U. S. Pat. Off.



For Beautiful Hands

girls find it wonderfully easy to apply World of Beauty Hand Lotion by Max Factor Hollywood. A squeeze of the Plaxpak bottle provides a controlled amount of lotion.



For After-Shave Comfort

men like the clean, masculine scent of Chessmen After Shave Powder. They also like the easy dispensing provided by the handsome, unbreakable Plaxpak bottle.



READERS REPORT



ABOUT YOUR future IN BUILDING!

Study this 3-point plan for solving your home-building problems . . .

1. SPEED OF ERECTION
(under roof in one day).
2. COMPLETE HOME PACKAGE
(except plumbing, wiring, masonry).
3. MINIMUM SKILLED LABOR REQUIRED IN
THE FIELD (simple, easy, standardized mod-
ular panel construction).

Gunnison Homes are erected in the field in half the time . . . with half the labor . . . without the headaches and uncertainties of conventional building!

For further information, write Dept. W-17
Gunnison Homes, Inc., New Albany, Ind.

Manufacturers of
Gunnison
Coronado
and CHAMPION Homes . . .

Gunnison Homes
UNITED STATES STEEL CORPORATION SUBSIDIARY
NEW ALBANY, INDIANA

"Gunnison," "Coronado" and "Champion"—T.M. Gunnison Homes, Inc.

Sold on Steam

Sirs:

As an avid reader of your excellent publication, allow me to compliment you on your reference to New York Central R.R.'s steam power rehabilitation [BW—Mar. 31'51,p22]. It is about time for the attention of our responsible business leaders to be directed to the inherent danger to our national security created by developing a surface transportation susceptible to a complete stoppage, as a result of a hypothetical enemy action against our oil refineries. Our stupendous national armament program can be completely nullified by leaving our transportation at the mercy of a determined enemy who now has enough of his own versions of our B-29 long-range bombers to reach any oil refinery within our borders.

The diesel is anything but a good investment when it has to compete with really good coal-burning steam locomotives, such as are produced by the Norfolk & Western R.R. The lamentably low earnings of the almost completely dieselize carriers, like Pennsylvania R.R., New Haven R.R., or the New York Central System, contrast sharply with the diesel-allergic Norfolk & Western, Illinois Central, Nickel Plate, or Virginian.

JOHN J. KUPKA

GLADSTONE, N. J.

Dicyclohexylamine

Sirs:

The Mar. 24 issue of BUSINESS WEEK, page 115, contained inaccurate references to a vapor rust preventive marketed by our client, Angier Corp., Framingham, Mass. The correct name is VPI—not VIP. Also, the chemical coating is a dicyclohexylamine nitrite—not nitrate.

EDWARD W. FISCHER
LARCOM RANDALL ADVERTISING,
BOSTON, MASS.

Its Own Sweet Time

Sirs:

I refer to the article you carried on the shortage of freight cars and the efforts that are being made to build new ones [BW—Mar. 17'51,p38].

As usual, there is more than one answer to the problem. A typical experience of a company with which I am connected will suggest what I have in mind.

Minneapolis and St. Paul are about 350 miles from here, and three roads run direct lines into Milwaukee; our plant is on one of the lines. A car

that was loaded in St. Paul on Mar. 6, and that formerly would have been here on Mar. 10, did not leave St. Paul until Mar. 10 and arrived here on Mar. 11. It was pulled off into a remote corner of the Milwaukee yards and not discovered until Mar. 16, when the road promised to have it on our siding at seven o'clock a.m. on Mar. 19. By Mar. 19, we were out of the raw product that the car carried and had to close down until the car finally arrived on Mar. 20 at noon.

In other words, this particular car was two weeks in transit over a distance of about 350 miles. Formerly this car would have done the work that three cars do under present conditions. In the last war, breakage was our big freight problem, but it looks as though scheduling of our raw material orders will provide us with plenty of headaches in the months ahead.

J. STEWART MURPHY
MILWAUKEE, WIS.

Missed the Mark

Sirs:

Your article "America Has a Word For It, Too" [BW—Mar. 31 '51, p42], referring to the Dictionary of Americanisms published by the University of Chicago Press, contained the following paragraph:

"'Victrola,' first the trademark name for the phonograph made by the Victor Talking Machine Co. and first used in 1917, became the name commonly used for all phonographs. 'Dictaphone,' 1907, and 'mimeograph,' 1889, both trade names originally, suffered the same fate."

With regard to the word "Dictaphone," this is in error. The definition is as follows:

"Dictaphone: (f. dictate plus phone). A trademark identifying a certain make of dictating machines and other sound recording and reproducing equipment. Also (not capitalized) sometimes incorrectly used to describe these machines generally."

You will note how scrupulous the University of Chicago Press is to identify the word "Dictaphone" as a trademark. As a magazine to and for business, shouldn't your authors be equally solicitous?

JAMES J. WINTERS
DICTAPHONE CORP.,
NEW YORK, N. Y.

• They should.

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 18, N. Y.

• "you name it... I helped make it!"



Glue for antagonistic surfaces

I'm never perplexed very long. About glue! Even when laminating difficult and varied surfaces that *bristle* with resistance. Like acetate, lacquer and polyethylene-coated kraft. Or pliofilm, acetate and polyethylene sheeting. For advertising displays. And packages. Emulsion adhesives dry to a clean, colorless, transparent film. Eliminate inflammable solvents. Reduce drying time from days to several hours.

... and listen!

• "you name it... I helped make it!" Watch label adhesives at work. Protecting product identity by holding tight to cellophane, foil or paper labels. And to bottles that often reach labeling machines greasy, wet or hot. Filled with mineral oil, olives, salad dressing. The NATIONAL touch is everywhere. Glue applied through imaginative research and service. To every item of daily life.

STARCHES

National

ADHESIVES

NATIONAL STARCH PRODUCTS INC.

Executive Offices: 270 Madison Ave., New York 16, N. Y. • Plants: Dunellen, N. J., Chicago, Indianapolis, San Francisco. • Sales Offices: All principal cities. • Canada: Toronto and Montreal. • England: Slough. • Holland: Veendam.

Potter & Brumfield

Leading Supplier of

relays

for every electrical
and electronic application.

Specialists in relays
for military equipment.

20 years experience in design
and contract manufacture of
special electro-mechanical
assemblies.

Send specifications for
recommendations, samples
and quotations.

Engineering offices
in all principal cities.

POTTER & BRUMFIELD



PRINCETON, INDIANA
Phone 1208

REZNOR
world's largest selling
gas unit heater

Hung from ceiling or mounted on floor

Lots of Heat—low fuel cost

The Reznor gas unit heater is actually a "machine" that manufactures the inside temperatures you want for all or any part of your office, store or factory. Reznor automatic heating machines also economize on your fuel expense. Write for Catalog U-50.

REZNOR MANUFACTURING CO.
3 UNION ST. • MERCER, PENNA.
Send me 20-page catalog in full color

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____

MANPOWER



HELP WANTED: Even TV spots and full-page displays are being used to lure workers.

Engineer Pinch Won't Ease

Outlook is for worse shortage as needs mount, graduating classes grow smaller. Survey finds all types of technical help are in peak demand from industry. Aircraft is particularly short.

In the fat classified sections of last Sunday's newspapers, column after column of help-wanted ads reached out for engineers and technical manpower. "Ask us about our good jobs," they read. "Unusual opportunity for recent graduates." "New fields for your talents; immediate openings available."

The ads were merely part of a steady barrage that industry has been leveling at the job market over the last four months. For the inescapable fact is that the U.S.—though only one-sixth mobilized—is already in the midst of a serious shortage of engineers and technical help. And, as a BUSINESS WEEK survey found this week, it is a shortage that is very likely to continue, even after the emergency is over.

• **40,000 Short**—The estimate now is that by 1954 there will be an accumulated shortage of 40,000 engineers (BW-Feb. 24'51,p99). The Engineering Manpower Commission of the Engineers Joint Council has figured that the country must have a minimum of 30,000 engineer graduates each year in order to meet normal and emergency needs. Yet in 1953 the projection is for a graduating class of only 17,000; 1954 is likely to show a drop to 12,400. Even this is an optimistic figure. If the draft takes some of the students,

the 1954 crop may not go above 9,000.

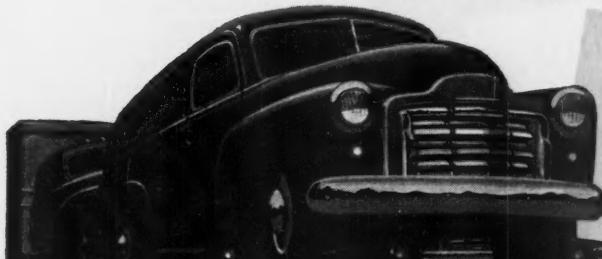
• **Causes**—In the main, there are three factors that have produced the present, and prospective, shortage of graduates. The low birth rate of the depression years, which is now catching up with the colleges, is one of them (BW-Apr. 7'51,p2). Another is the fact that the Bureau of Labor Statistics last spring released a study that showed a future glut of engineers rather than an undersupply. Many students who wanted engineering were steered away from the course by college counsellors.

But the main reason for the tightness lies in the technical buildup brought on by mobilization. Since the last war, industry has been absorbing just about all the graduates turned out—the normal thing during high levels of business activity. When defense industry had to tap the manpower pool—and the pool was small or nonexistent—things began to hurt along the line.

• **Long Wait**—Ultimately, of course, supply will come into line with demand. But that may take years. In the meantime, demand will be growing, producing a permanently higher level of employment as new technical advancements require more and more skilled people. Thus the outlook now is for continued shortage, lasting at least

TRUCKS FOR RENT

BY THE HOUR, DAY, WEEK!



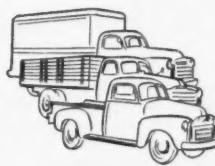
Call
HERTZ

Everything furnished but the driver!

RENT for an hour, day, week or long term lease



It's so much easier . . . and more economical, too . . . to rent a truck from Hertz than to maintain an extra truck for emergencies or peak periods! Rent a truck on a moment's notice, in tiptop condition, with gas, oil and insurance included in the surprisingly low rate. You furnish only the driver. Thousands of business firms and individuals rent trucks from Hertz daily for short or long periods. Hertz also has a great Long Term Truck Lease Plan, one truck or a fleet . . . a sound plan that releases capital investment, yet gives all the advantages of private ownership at a cost usually less than ownership!



TRUCKS expertly conditioned for every kind of job!

When you rent a truck from Hertz you get the right truck for your specific job. Hertz maintains, in most Hertz cities, fleets of 1-ton panel, $\frac{3}{4}$ -ton panel trucks, pick-up and stake bodies, always in excellent condition. You get a truck you or your driver will be proud to drive, and one that will give you maximum, efficient service.

RENT any hour, day or night

Think! Any time you need an extra or substitute truck it's virtually as near as your telephone! Call your local Hertz station, listed under "H", "Hertz Driv-Ur-Self System", any hour, day or night. That's how easy it is! You will get a truck promptly, all ready to go.



HERTZ Driv-Ur-Self SYSTEM

National Headquarters

Dept. G-41, 218 South Wabash Avenue, Chicago 4, Illinois.



Rent passenger cars
from Hertz, too!

Throughout more than 450 cities that comprise the Hertz System, world's largest car rental service, fine new cars are available by the hour, day, week, month or on long-term lease. Gas, oil and insurance are included in the low rates . . . the cars are perfectly conditioned and as private as your own. Call your local Hertz station today!



Look in your telephone directory
under "H"
for your local Hertz station

For additional information, call
your local Hertz station or write
Hertz Driv-Ur-Self System, Inc.,
Dept. G41, 218 South Wabash
Avenue, Chicago 4, Illinois.



FREE BOOK FULL OF

Paint Ideas!

Read how to brighten Plant Interiors WITH JUST ONE COAT

New free book tells how to get better paint results at lower cost . . . how to buy and apply the right aluminum paints.

Alcoa does not make paint. We prepared this book so you can know about many improvements in aluminum paints; can buy the best paint for each job without lengthy specifications and tests; so you can apply paints best for long life and good appearance.

Free book is packed with maintenance painting tips, coverage tables, facts on right aluminum paints to use inside and out, on wood, metal and hot surfaces. For your free copy, attach the coupon to your letterhead and mail today.

MAIL THIS COUPON TODAY!

Paint Service Bureau, Aluminum Company of America,
1784D Gulf Building, Pittsburgh 19, Pa.
Please send me free book, "Painting with Aluminum".

Name (please print) _____

Address _____

City _____ State _____

I want to paint the following: _____

Look for this shield on aluminum
paints made by many paint manu-
facturers using ALCOA PIGMENTS.



through the middle '50's and, perhaps, beyond.

• **Doors Stormed**—Almost without exception, shortage was the first word off the tongues of the educators, state officials, and businessmen that BUSINESS WEEK reporters talked to this week.

Massachusetts Institute of Technology has more manufacturers storming its door than at any time since the war. The school's placement director said he could get two to three jobs for every available student. All skills are in demand—electrical, mechanical, chemical engineers, the entire sweep of technical fields.

Drexel Institute of Technology reported its placement service was able to supply less than 10% of the calls for technicians. The greatest demand is for mechanical engineers, outnumbering other classifications two to one.

• **Too Many Jobs**—At Rensselaer Polytechnic Institute, the heaviest pressure is for design, development, and production men. In specific fields, electronic, mechanical, chemical, and metallurgical engineers are tightest. RPI says there are probably twice as many June jobs open to competent seniors as there are men to fill them.

Illinois Institute of Technology says any engineering graduate can begin work the day after graduation. No one is starting for less than \$275 a month, and one company offered \$500 a month for an electronics engineer with a bachelor's degree. The average is \$290 to \$310. Illinois also reports that industry is seeking women engineers for the first time. And there's on-the-spot hiring, which has never happened before.

• **All Hands Needed**—Although the engineer shortage is the easiest to bring into focus, the shortage of skilled help goes far beyond just graduates. All technical workers have grown progressively scarcer since last fall.

Some of the reasons for this trace back to the last war. There is no question but that World War II, with its terrific drain on manpower, hurt the development of highly skilled artisans—the glass blowers, tool-makers, and draftsmen. Also, the war stopped apprentice training generally. And it halted the normal flow of craftsmen from Europe—which never really started again.

• **Aircraft Hurts**—Among industries, aircraft understandably is in one of the tightest fixes. Several big West Coast plants are offering eastern electronics engineers 10% more than they're making now, plus transportation for the men and their families.

California's Dept. of Employment says orders for engineers in batches of 20 to 60 are common. "We have orders now from six companies for a total of 100 electronics engineers. We also need more designers, stress ana-



Let ROYAL ELECTRIC cut office costs...raise morale!

Want to increase the number of letters per typist?
Turn out more invoices?

Want to step up stencil production? Release typing personnel for other work?

You can achieve these cost-cutting steps with the Royal Electric. It is the long-preferred Royal Standard ...with power added.

And here's how Royal Electric raises morale with secretarial and typing personnel . . .

They get terrific satisfaction out of the job itself, be-

cause they work faster and get neater, cleaner results.

Fatigue is lessened, too. At the end of the day the operator has expended only a trivial amount of energy; pressing a button does everything electrically.

And with less fatigue comes greater morale—a point alert management is considering more and more.

**Clip coupon for
full details, now!**



Royal Typewriter Company, Inc., Dept. 18
2 Park Avenue, New York 16, N.Y.

I would like a copy of the brochure, "Picture of Progress," describing the Royal Electric.

NAME _____

COMPANY _____

ADDRESS _____

STANDARD ROYAL ELECTRIC

Made by the World's Largest
Manufacturer of Typewriters

"Touch Control" and "Magic" are registered trade-marks of
Royal Typewriter Company, Inc.



Dust Takes a Holiday in this Inspection Room

ANOTHER EXAMPLE OF PRODUCTION IMPROVEMENT THROUGH AIR CONDITIONING AND REFRIGERATION

Cleanliness and conditioned, filtered air are factors of the utmost importance in the manufacture of photographic film. Dust, dirt and lint must be barred not only from the room in which film is given a final inspection before packaging, but during the entire manufacturing process as well.

Throughout film production . . . temperature and humidity within the plant are vital. Both must be scientifically controlled to assure dependable uniformity of film base as well as the speed, contrast, latitude and grain of sensitive emulsions.

This is but another example of air conditioning or refrigeration put to profitable use in industry. Have you thought how air conditioning or refrigeration may assist you in developing new products . . . improving present products . . . or making them faster and more economically? If you're not making use of air conditioning and refrigeration you should explore its possibilities now.

Talk it over with your engineer, consultant, architect or contractor. Get his recommendations on equipment designed to use "Freon" refrigerants. The proved safety features and other characteristics of "Freon" refrigerants give maximum protection with maximum efficiency. E.I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.



Better Things for Better Living . . . through Chemistry



FREON

SAFE REFRIGERANTS

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.

lists, tool designers, and draftsmen."

Most companies would prefer experienced hands to men fresh out of school. But in their present straits, they have little choice. As a matter of fact, North American Aviation took so many mid-year engineering graduates that its older engineers, who have to train them, begged for relief.

Lockheed Aircraft now puts its non-aeronautical (electronics and mechanical) engineers through a special conversion program at Northrop Aeronautical Institute, run by rival Northrop Aircraft. The 12-week indoctrination course is a condensed version of the institute's two-year program. Lockheed also has a six-week hurry-up program of its own.

• Little Relief—Generally, most people agree that more technical manpower will be needed in the development stage of mobilization than in the production period. Even so, there will be a permanently higher level of demand. The average airplane prototype is no sooner flown—or designed for that matter—than hundreds of changes are engineered into it.

There's also the fact that aircraft manufacture today requires more engineers than it used to. Lockheed figures that in 1945 it spent one engineering hour for each 10 in the factory; today the ratio is one to four. The same sort of thing applies through all industry. Back in 1930 the ratio was one engineer to 100 workers; in 1948 it was one to 70.

• Canvassing—Outside of aircraft, the need for technical help may be slightly less acute, but not much. International Harvester says it's short 160 technical people right now; it has seven men out trying to find them. Budd Co. wants designers on assembly jigs, draftsmen on forming, trimming and piercing dies, and layout draftsmen on railway cars. Allis-Chalmers could use several hundred mechanical and electrical engineers right now. Kansas City companies (Bendix Aviation, Spencer Chemical, J. F. Pritchard) cite the shortage of tool designers, draftsmen, electricians, and piping draftsmen.

In Cincinnati, Avco's Crosley Division has gone on the air with a television appeal for engineers and draftsmen. "Here's the easiest way in the world to apply for a job. No laborious letter writing." The applicant calls a phone-answering service, is asked his name, other pertinent data, and told to state his qualifications. All this is recorded. Then records go to the personnel man who reviews them and phones likely applicants.

• Autos, Too—Around Detroit, companies find that getting engineers is "like searching for diamonds." Ford reports that outside of diemakers—of whom it could use 500 at the Rouge—

its main manpower concern is process and production engineers. Another company says practically all its technical staff is going on a longer work week. It can't get additional help—even inexperienced hands.

Petroleum companies need everyone from technicians and draftsmen to Ph. D.'s. One California refiner says the worst shortage is in men well-advanced in the natural sciences—physicists, chemists, civil engineers, and petroleum engineers. Around Houston, draftsmen with piping experience are hardest to find. There's also a dearth of graduate engineers with five to 10 years' experience for jobs as supervisors or as chief draftsmen.

In Pittsburgh this week Westinghouse Electric launched a cross-country series of ads in about 70 newspapers, 26 technical magazines, and a selected number of radio and TV stations beamed specifically at technical manpower. The company figures it needs 563 electrical engineers, mechanical engineers, metallurgists, chemists, physicists, and technical writers—right now.

• **Fuller Use**—There's always the point, of course, that many companies could ease their shortage of engineers by making fuller use of the ones they have. The natural upgrading of job qualifications during peacetime undoubtedly has put some people in jobs that are beneath their ability. Programs aimed at fuller utilization of their talents can do a lot to stretch the available supply of technical skills.

Westinghouse is one example of what a company can do. The company has turned to wider use of analogue computers to sidestep some of the impact of the shortage. Here's an example of the saving of technical manpower it gets from the equipment:

• **Turbine Design**—On most big turbine-generators the designer has to have answers to certain shock problems before the forgings can be ordered. It would take a two-man team (the best men of the younger engineer group) from two to four weeks to work out the computations. And one arithmetical error could mean a complete re-do.

With the two-man team and an analogue computer, the whole problem can be worked out in half a day. Chances of mistake are practically nil. You have a ratio of as much as 40 to 1 in time saved.

Besides solving a specific problem, the analogue computer has another valuable use: It often can eliminate detailed physical tests of new equipment. The system is to make a complete study of the equipment on the computer, then to compare the results with perhaps one or two physical spot checks. In one instance, the company avoided a \$50,000 physical test this way, did the job for only \$12,000.



"This man is going places.."



"Y and E" Style-Master Associate desk in Neutra-tone gray is illustrated

"Jim Burnett had spoken to me several times about the service he and his company could give me. I dropped in on him today to see what sort of an operation he had. I was impressed. It is not a large company, but the offices radiate quiet efficiency. They are nice looking offices too. I couldn't help but think 'this man is going places'."

Jim Burnett's offices are helping him to go places. They are helping because they say

to prospects, "This company is successful—they will handle your business well."

Your office can help you to greater success—if you plan it with care. "Y and E" office equipment is designed and made to fit an office that expresses success. It is efficient to use and pleasant to look at.

There is a "Y and E" representative in your community . . . Call him for help in planning an effective office



YAWMAN AND FREE MFG. CO.

1006 JAY STREET • ROCHESTER 3, N. Y., U. S. A.

Write for Steel Desk Catalog No. 3806

DON'T LOOK SO WORRIED!
WE'LL CHECK THE B OF M
TO SEE IF IT IS A GOOD SITE!



Excellent idea! You see, the Bank of Montreal through its branch managers—whether in remote mining towns or teeming industrial centers—can investigate business opportunities right on the spot.

Consequently, with over 550 branch managers across Canada, the B of M can furnish the answers on

manufacturing space or plant sites, labor, transportation, market potentials—in short, just about all the key information you must have for your industry to capitalize on Canadian Opportunity.

For the fastest action, contact any U. S. office or the Business Development Department, Bank of Montreal, Place d'Armes, Montreal.



BANK OF MONTREAL

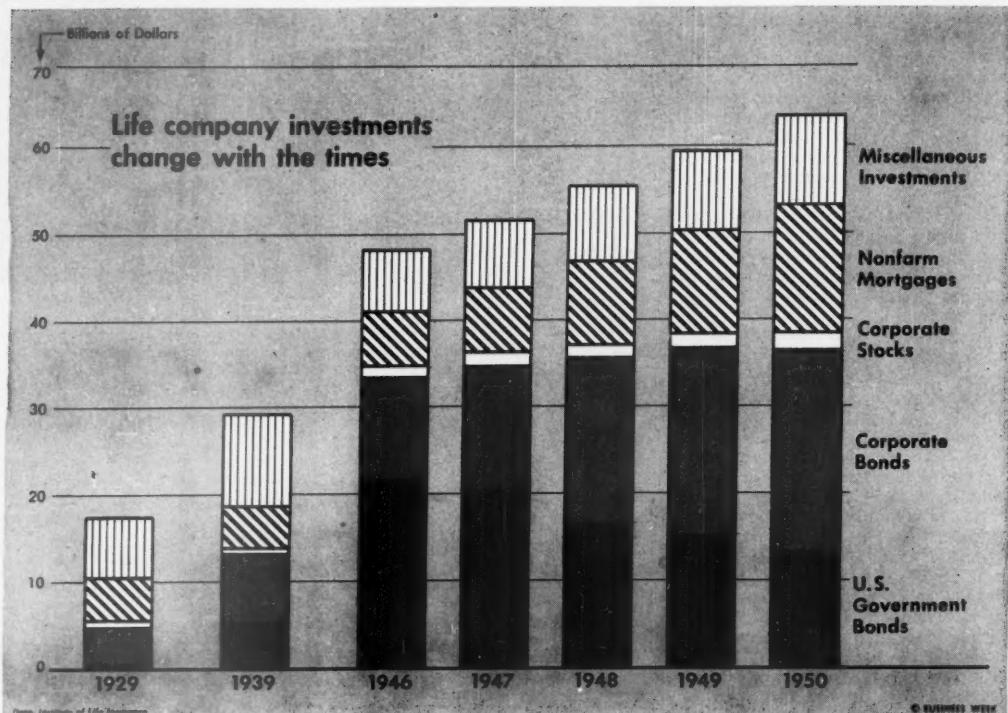
Canada's First Bank Coast-to-Coast

New York---64 Wall Street Chicago---27 S. LaSalle Street San Francisco---333 California Street

Head Office: Montreal

550 BRANCHES ACROSS CANADA • RESOURCES EXCEED \$2,000,000,000

FINANCE



New-Money Pool Starts Drying Up

Life companies will have a lot less to lend business. Main reasons: already heavy commitments, fewer governments to cash in.

The nation's pool of uninvested capital is no longer filled to the brim and overflowing. The demand for new capital is finally exceeding the supply.

There is no sign yet of an alarming shortage. But new capital is no longer available for the asking. Officials of the life insurance companies—the nation's largest single provider of "for rent capital" (chart)—are frank to admit that they have been forced to turn down an increasing number of "good" loans because they are at last starting to run out of uncommitted funds.

Borrowing costs, as might be expected, are beginning to rise.

- Three-month money now costs the Treasury more than 1½%. The figure three months ago was 1.33%. Treasury 1½s, 1955, now offer a yield in the market of 1.96%, compared with 1.68% earlier; 2½s, 1959-62, give 2.41% against 2.16% before; the return on "ineligible" long term 2½s is more than 2.60% now; it was 2.44%.

- Dow-Jones municipal-bond-yield average, which moves inversely to prices, has climbed from 1.72% to 2.13% since mid-February.

- In the first half of March, New York City banks charged their business borrowers an average rate of 2.69% on short-term loans. Last December the rate was 2.45%; a year ago it was 2.28%.

- Corporations are paying the highest borrowing costs in years. Southern Pacific Co., for instance, was able to sell a new equipment-trust issue only by agreeing to an annual interest expense of 2.99%. That's the highest charge on a comparable new offering since 1937, Wall Street reports. Just a year ago Sopac was able to sell a similar issue at a cost of only 2.19% yearly.

Worcester County Electric Co. and Potomac Edison Co. have both had to accept bids for new long-term bond offerings that involved annual interest

costs of 3.22% and 3.35%. These are the highest rates for similar-quality issues since 1939. Earlier this year both these deals probably could have been taken care of on a 2.80%-2.85% cost basis.

- **Poole Drying Up**—Most upsetting to corporate borrowers is the news that the life insurance companies' huge pool of new-capital money appears at last to be drying up—at least at the edges. Since 1945 the life trade has been by far the biggest single source of new money for business.

In the five years since World War II ended, life insurance holdings of business securities have skyrocketed 126%—from around \$11.1-billion to close to \$25.2-billion. Business holdings now make up 40% of life companies' assets, compared with 25% in 1946.

From now on, though, many businessmen are going to find it difficult to get new loans from the life trade. Here's why: Commitments already made will absorb a very substantial portion of the investible funds available in the months ahead. There's not

going to be much left in the way of loanable funds for "new" investments.

• **Why?**—One of the factors contributing to the present picture is obviously the continuing record demand for new capital.

But the basic cause for higher loan rates and tighter supply is the new Treasury-Federal Reserve anti-inflation program. It has upped rates throughout the whole money-rate structure (BW-Mar. 24'51, p120). And it is directly responsible for the fact that the life insurance companies probably will not be able to take care of all the acceptable loan applications they get over the coming months.

• **From Bonds**—Much of the money the life companies have been lending to business has come from sales of a large part of their government bond holdings. At the end of 1946, these holdings totaled \$21.6-billion and accounted for around 45% of all assets. But by the end of last year the amount was down to \$13.4-billion, or only 21% of total resources.

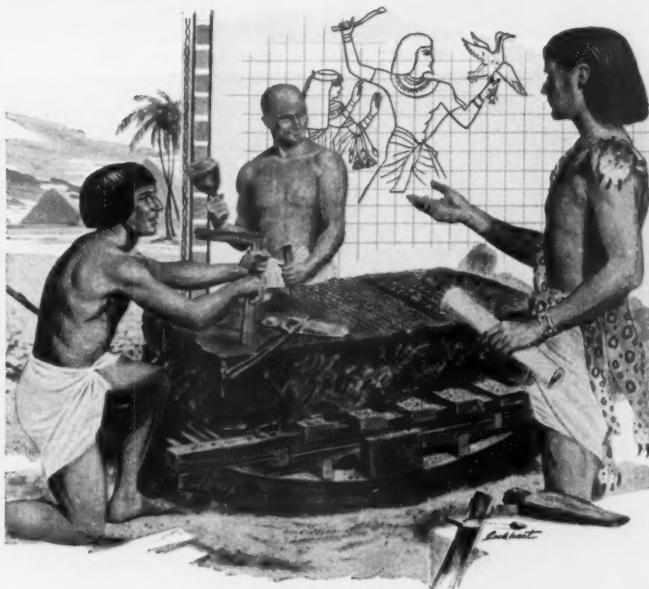
Under the new scheme of things, it is no longer possible for the insurance companies freely to build up their supply of lendable funds through the sale of governments. For one thing, their supply of directly marketable governments was cut sharply last month through the exchange of \$2.6-billion of 2½s, 1967-72, for the Treasury's new nonmarketable 2½%, 1975-80, issue. For another, the trade can now be expected to follow the advice of its Joint Committee on Inflation Control, which has suggested that it do nothing to upset the government's monetary management program. Then, too, sale of governments today would probably mean a capital loss for the companies rather than a gain.

• **Mortgages**—All the proceeds from the sale of bonds, of course, haven't gone into corporate debt obligations. Huge amounts have been channeled into mortgages. These holdings have expanded from slightly more than \$7-billion to some \$16.5-billion over the last five years. At the start of the period they made up less than 15% of all life company assets; by the close of last year they accounted for some 25%.

As is the case with corporate lending operations, the trade has already many commitments for the portion of its investible funds earmarked for mortgage loans. The exact amount isn't known. However, mortgage commitments of one of the Big Five are reported to add up to around \$780-million.

• **More Private Deals**—From present indications, the life companies aren't at all likely to be the factor in the public new-issues market that they normally are. Private placement deals this year have taken up most of the

MESSAGES THAT MADE HISTORY • COPYRIGHT 1951 • GILBERT PAPER COMPANY



Three cheers for Ptolemy . . .

The gentleman above is recording what a fine fellow Ptolemy is. Though the message was strictly "puff" it became important 2000 years later . . . for on that one stone the same message was carved in three languages . . . Greek, and two forms of Egyptian hieroglyphics.

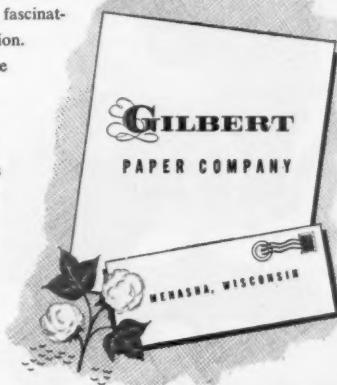
The stone turned up again in 1799. In the interim all knowledge of hieroglyphics died out. However, a Frenchman, Champollion, from the Greek inscriptions, deciphered the hieroglyphics, making possible the fascinating study of the Pharaoh's civilization.

What future historians will make of his correspondence is not a concern of today's businessman. But, he is concerned in having his letterhead reflect the quality of his product or service. That is why so many firms select Gilbert Quality Writing Papers. Ask your printer, engraver or lithographer for samples of Gilbert new-cotton-fibre-content letterheads with matching envelopes.



BOND • ONIONSKIN • LEDGER
INDEX BRISTOL • MANUSCRIPT COVER • VELLUM • SAFETY
REPRODUCTION • BANKNOTE PAPERS

A good letter is always better-written on a Gilbert Bond



*These Bonds have not been and are not being offered to the public.
This advertisement appears as a matter of record only.*

NEW ISSUE

\$22,500,000

Crucible Steel Company of America

First Mortgage Sinking Fund Bonds
3½% Series (Series B) Due 1966

*A Purchase Agreement which provides for the future delivery
of the above Bonds has been negotiated by the undersigned.*

The First Boston Corporation

NEW YORK BOSTON PITTSBURGH CHICAGO
PHILADELPHIA CLEVELAND SAN FRANCISCO

April 12, 1951.



Good office seating is an investment. Bad seating is expensive. Write for your Sturgis dealer's name and our stimulating booklet, "The High Cost of Sitting".

THE **Sturgis** POSTURE CHAIR CO.
STURGIS, MICHIGAN

time of their "buying departments." While some of these purchases are never publicly announced, you can easily locate 90 transactions in 1951 that all told have involved close to \$800-million of new loans or stock purchases.

It is true that a number of these deals were with big business. More than \$550-million of the total came from 14 transactions. One deal was for \$110-million.

But small business hasn't been neglected. Many smaller bits of financing (under \$1-million) are scheduled, including some involving as little as \$250,000. The average size of the 90 loans, after deducting the 14 big transactions, figures out to only around \$3-million.

States and cities also got their share. Life companies recently bought direct \$15-million of City of Toronto obligations, another \$3-million of Province of Saskatchewan bonds.

• **Outlook**—It's still anyone's guess whether borrowing rates will continue to climb in the months ahead. Many Wall Street and Washington fiscal experts insist the trend hasn't too much farther to go, that no protracted upswing of interest rates is in sight.

As for governments, the experts see a demand springing up later this year as the mobilization program progresses. Shortages of goods will leave fewer outlets for investible funds. They expect this to cause a buying splurge that will bid up prices of governments without any Federal Reserve price-propping.

• **Hope for Best**—Corporations and individuals now planning to borrow should pray that the forecast proves true. The whole money rate structure is built upon the yields available from government bonds. The current "going rate" in the government market, in fact, dictates the going rates on bank loans and commercial paper, on new corporate and municipal security issues, on instalment financing, and on home-building financing.

More Diversification

Detroit & Cleveland Navigation Co., continuing its diversification policy (BW-Feb. 10 '51, p119), has purchased an interest in Denver & Chicago Trucking Co. But the deal has landed D&C in hot water with the Interstate Commerce Commission, because it was completed before the purchasers received ICC approval.

George Kolowich, D&C president, told an ICC examiner he exercised an option to buy 270,000 shares of the trucking company's 450,000 shares of stock last month. The deal was completed before ICC approval to keep the option from lapsing, he said.

Contact **KAYDON** Muskegon

FOR ALL TYPES OF BALL AND ROLLER BEARINGS: 4" BORE TO 120" OUTSIDE DIAMETER

KAYDON Tapered Roller Bearings 16.500" x 18.750" x 0.875"
with **KAYDON** Bronze Cages, silver plated, for high speed acceleration

Safe Way to Reduce Weight

Look again at this thin section bearing. **KAYDON** bearings like these, designed with very thin section, are a boon to design engineers who recognize weight-reduction and greater precision as prime problems today.

KAYDON Thin-Section Tapered Roller, Straight Roller, and Ball Bearings are helping solve such problems. All types can be made unusually light in weight, and permit

much more compact machine design.

Unique high precision techniques that hold to closest tolerances in bearings as large as 120 inches outside diameter, assure consistent accuracy in all types and sizes of **KAYDON** bearings and needle rollers.

* * *

For your precision bearing requirements, contact **KAYDON** of Muskegon . . . Dept. B.

KAYDON Types of Standard and Special Bearings:
Spherical Roller • Taper Roller • Ball Radial • Ball Thrust
• Roller Radial • Roller Thrust • Bi-Angular Bearings

KAYDON
THE ENGINEERING CORP.
MUSKEGON, MICHIGAN
PRECISION BALL AND ROLLER BEARINGS

INDUSTRIAL BUILDINGS



MISSOURI

The Heart of America

• Ninety-two excellent industrial buildings...large and small...now are available in Missouri to industries seeking new factory or branch locations. These buildings are for sale and for rent...and offer excellent facilities at reasonable cost. Investigate...you may find just what you want.

Missouri...is almost the geographical center of the nation and in the "Circle of Safety"...offers inland security. This great state is surrounded by large coal, oil and gas reserves. Transportation is the best. Plenty of water and power is available.

Write for information concerning your particular business.

**MISSOURI DIVISION of
RESOURCES & DEVELOPMENT**
Dept. 14-B Jefferson City, Mo.

I-5



RAYONIER
INCORPORATED



PRODUCER
OF HIGHLY
PURIFIED
WOOD
CELLULOSE

COMMON DIVIDEND

The Board of Directors has declared a quarterly dividend of seventy-five cents (75¢) per share on the Common Stock, payable May 15, 1951 to stockholders of record at the close of business April 27, 1951.

R. L. LINGELBACH
Secretary

April 3, 1951



"BUCK" DUMAINE has unhappy two hours at New Haven's annual meeting.



FURIOUS stockholder Samuel Glick wonders why the \$5 preferred dividend hasn't been paid.

Dumaine Vs. Stockholders

Only one director of the New York, New Haven, & Hartford R.R. showed up for the annual stockholders' meeting in New Haven, Conn., last week. He was Frederic C. Dumaine, Jr., son of 85-year-old F. C. Dumaine who took over the management of the New Haven three years ago (BW-Jul. 24'48, p80).

The Dumaine group holds a majority of the preferred stock and control of the road. But it has paid no dividends, although the New Haven has earned enough to pay them.

That's why other preferred stockholders came to the meeting in a truculent mood. They got Dumaine to admit that—although it wasn't mentioned in the annual report—the New Haven not only earned its \$5 preferred dividend in 1950, but it earned \$3.35 on each share of common stock as well.

Young Dumaine explained that the road was following a conservative policy in order to finance new equipment. He said he was "very hopeful" a dividend would be coming soon.

Several stockholders declared it was "disgraceful" that only one director saw fit to attend the meeting. Said Dumaine, smiling: "I'll be sure to tell them that at the next directors' meeting."

But urbane Dumaine got angry himself when stockholders pressed for the reasons behind the recent firing of vice-president J. Frank Doolan, latest in a long series of Dumaine ousters of top brass (BW-Sep. 2'50, p64). He threatened to adjourn the meeting, saying: "I've got the votes. I'm not running this railroad with Dad or the others selfishly." A few minutes later, he carried out his threat.



SECRETARY CARMICHAEL, who presided at meeting, exchanges repartee with Glick after Dumaine ended the stormy meeting. Carmichael is not a New Haven director.



URBANE stockholder Eric Heymann asks why the road must hold \$40-million in liquid assets.



ANGRY stockholder Havas asks why annual report omits showing per-share profits.



PLEADING stockholder of the Boston & Providence R.R., whose tracks the New Haven leases, wants to know when New Haven will pay rent. It hasn't paid any since 1938.

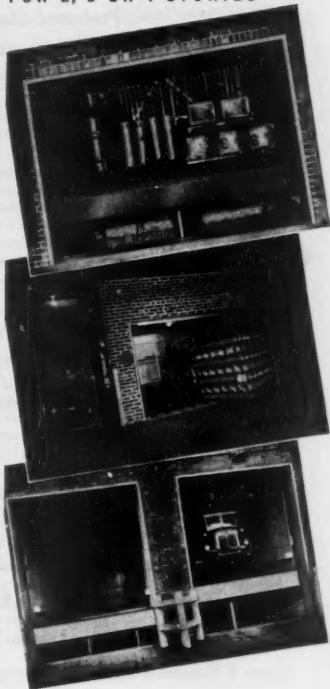


AFTER MEETING adjourned, Glick keeps hammering at the younger Dumaine. He thought Dumaines were holding back dividends because they are in high tax bracket.

MOST ECONOMICAL

Heavy-Duty Freight Elevators

FOR 2, 3 OR 4 STORIES



■ Oildraulic Elevators are designed for low-cost installation and economical, trouble-free operation. No penthouse or heavy load-bearing shaftway structure needed . . . powerful hydraulic jack supports car and load. Rugged car construction to withstand shocks and jolts of power truck loading. Automatic floor leveling within $\frac{1}{4}$ " guaranteed, regardless of load size or rate of speed. Car sizes, capacities and controls as required.

Over 55,000 Oildraulic Elevators and Lifts are now in use . . . backed by Rotary's coast-to-coast service organization.

For catalog, write Rotary Lift Co., 1029 Kentucky, Memphis 2, Tennessee.



Oildraulic Elevators

This announcement is not an offer of securities for sale or a solicitation of an offer to buy securities.

New Issue

April 12, 1951

1,000,000 Shares

Celanese Corporation of America

Preferred Stock, Series A

4½% Cumulative Dividends, Par Value \$100 per Share
(Convertible prior to May 1, 1961)

The Preferred Stock, Series A is being offered by the Corporation (a) for subscription on Warrants issued to Common Stockholders, at the rate of 6/35ths of a share of such Preferred Stock for each share of Common Stock, at the Subscription Price stated below (7% Second Preferred Stock will be accepted on subscriptions at \$150 per share), and (b), subject to such subscription offer, in exchange for 7% Second Preferred Stock on the basis of 1½ shares of Preferred Stock, Series A for each share of 7% Second Preferred Stock, all as set forth in the prospectus. Preferred Stock, Series A may be offered by the underwriters as set forth in the prospectus.

Subscription Price To Warrant Holders
\$100 per share

Copies of the prospectus may be obtained from such of the undersigned (who are among the underwriters named in the prospectus) as may legally offer these securities under applicable securities laws.

Dillon, Read & Co. Inc.

Glore, Forgan & Co.

The First Boston Corporation

Merrill Lynch, Pierce, Fenner & Beane

Blyth & Co., Inc.

Goldman, Sachs & Co.

Harriman Ripley & Co.

Kidder, Peabody & Co.

Lazard Frères & Co.

Lehman Brothers

Smith, Barney & Co.

Stone & Webster Securities Corporation

White, Weld & Co.

Dean Witter & Co.

BUSINESS • INDUSTRIAL • FINANCIAL
REAL ESTATE • PERSONNEL • COMMERCIAL

OPPORTUNITIES

MAY BE SOUGHT FROM, OR OFFERED TO, MANAGEMENT-MEN
THROUGH BUSINESS WEEK'S CLASSIFIED SECTION . . clues

More Merger Talk About Commercial Bank

After almost a year of merger rumors, the wolves are hot on the trail of New York's Commercial National Bank & Trust Co. This week three big New York banks—Bankers Trust Co., New York Trust Co., and Chemical Bank & Trust Co.—were all reported to be bidding for Commercial.

• **Opposition Gone?**—What seems to have touched off the wolf pack was the death, three weeks ago, of Walter G. Kimball, Commercial's board chairman. Kimball was said to have opposed sale or merger of the bank. However, at Commercial's annual meeting last January, a strong minority of stockholders favoring sale of the bank got representation on the board of directors.

Commercial, with its single office on Wall Street, doesn't seem to fit into the expansion plans of branch-minded Bankers Trust. But banks nowadays are usually sold at about the "adjusted book value" of the assets, and, if Bankers can take over Commercial without paying a premium above this for the stock, the smaller bank's \$192-million deposits would be worth the effort.

The deposits, in effect, would cost nothing. Bankers could use Commercial's assets to pay off the smaller bank's obligations, and, if it had correctly appraised Commercial's balance sheet, the assets left over would be about equal to what it paid for Commercial's stock.

• **Added Reason**—The same goes for the other two banks. But New York Trust has another reason for wanting to take over Commercial. Merger would give it a Wall Street office.

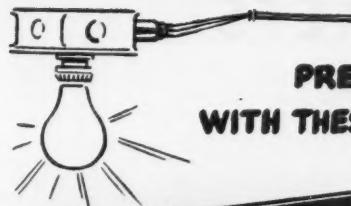
Some observers think New York Trust may be willing to bid higher than the \$70 a share they estimate is Commercial's adjusted book value. Early this week Commercial stock sold at \$69.75 bid, \$72.25 asked.

FINANCE BRIEFS

Kaiser-Frazer Corp. lost only \$13.3-million last year, compared to a loss of \$30.3-million in 1949. President Edgar F. Kaiser says sales rose from \$104-million in 1949 to \$238-million in 1950. However, K-F cut car production in half this week.

Bell System earned \$3.27 a share in the first quarter, compared to \$2.80 in the same period last year, reports president Leroy A. Wilson.

Life insurance companies earned 3.09% on investments in 1950, says the Institute of Life Insurance, compared with 3.04% in 1949, 2.88% in 1947.



**PREPARE FOR TODAY'S DEMANDS
WITH THESE G-E WIRING FACTS!**



**1. WHAT'S THE NEW WIRING SYSTEM THAT OFFERS
BRAND-NEW FLEXIBILITY OF LIGHT CONTROL?**

A new G-E system gives flexibility of light control, provides centralized, ON-OFF control of lighting for foremen, night watchmen, and administrative personnel—and, at the same time, makes possible individual control right at benches or desks. **WHAT IS THIS NEW SYSTEM?**

**2. HOW CAN YOU ADD EXTRA
POWER LOADS TO YOUR PRESENT
ELECTRICAL RACEWAYS?**

Your operations may be limited because of the type of cable now in service in your raceways. You may be able to use these same raceways and still provide for extra power. **HOW?**



**3. WHAT'S THE DISTRIBUTION SYSTEM
THAT LETS YOU PLACE MACHINE TOOLS
ANYWHERE ON THE FLOOR?** Changing production requirements demand electrical flexibility in floor layout. For electrical availability your plant needs the distribution system that puts power where you need it, when you need it. **WHAT IS THIS SYSTEM?**



**5. WHAT IS THE BEST WIRE TO USE
IN LOCATIONS EXPOSED TO GASOLINE?**

This condition formerly required the use of heavy, lead-sheathed cables. Today, a new General Electric lightweight, hydrocarbon-resistant wire helps you do the job efficiently and economically. **WHAT SHOULD YOU SPECIFY?**

**4. HOW CAN YOU PROTECT MACHINE
TOOL LEADS FROM VIBRATION?**

Rigid protection used for this purpose is often bulky and fails to provide the necessary "play." **HOW DO YOU GET THE RIGHT PROTECTION?**

Answers

1. It is General Electric's new, low-cost, multi-point remote-control wiring system. Use it for added flexibility of control.
2. By substituting General Electric's Deltabeston® type AVA cables for ordinary cables with 60C rating, you may be able to add as much as 64% more current to your existing raceways.
3. G-E Fiberduct raceways—non-corrosive, underfloor ducts—can be laid in your concrete floor in a grid pattern that will permit installation of machines anywhere along the ducts.
4. Use G-E flexible steel conduit for vibration-proof installations in close quarters.
5. General Electric Geotrol wire is the full name of this new gasoline-and-oil resistant wire. Listed by Underwriters' Laboratories, Inc.

*Registered trade mark of General Electric Company

FOR FURTHER INFORMATION

on any General Electric wiring materials, see your local G-E Construction material distributor, or write Section K55-410, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.

GENERAL  **ELECTRIC**

HERE'S AN *Oster* GUARANTEED QUALITY

SPECIALTY

COMPACT
RUGGED
PRECISION BUILT
FRACTIONAL H.P.
ELECTRIC MOTORS

1/1000 H.P. to 1/4 H.P.



For 25 years, OSTER has specialized in building fractional H.P. motors to meet specific requirements. OSTER is unsurpassed in engineering, tooling, and assembly of electric motors up to 6" maximum O.D. of the following types:

Direct current—6 volts to 220 volts

Universal motors—6 volts to 220 volts

Induction motors—conventional voltages

Shaded pole motors—conventional voltages

400 cycle motors of the smaller sizes

Also precision electro mechanical assemblies

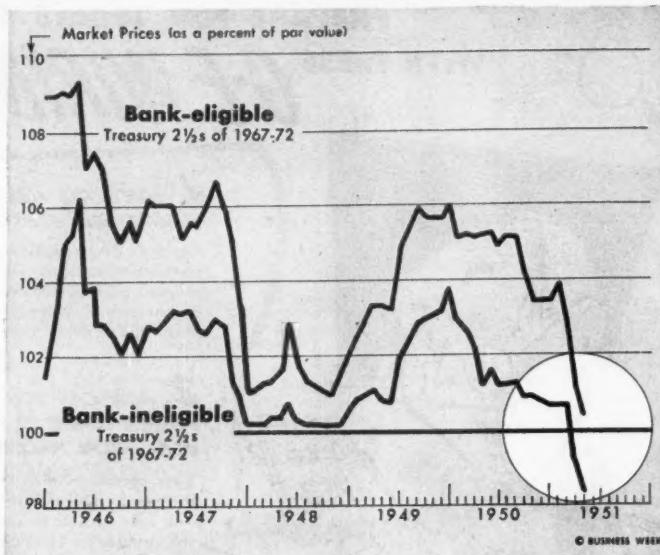
In several fields of fractional H.P. motor use, OSTER is the world's largest producer—electric barber clippers and massage instruments, for example. OSTER electric housewares, including food mixers, knife sharpeners, and hair dryers, because of their outstanding design and efficiency, are currently national best sellers.

All this OSTER experience and precision workmanship, plus the considerable volume of fractional H.P. electric motor production, assures you a reliable source for motors of dependable performance. For full information as to how OSTER can serve your special motor needs, write, wire or telephone . . .



JOHN OSTER
MANUFACTURING CO.
RACINE, WISCONSIN

THE MARKETS



© BUSINESS WEEK

Governments Keep Dropping

Long-term government bond prices have slumped since FRS withdrew support. But dealers can't drop much more—the Treasury has too many marketable issues maturing this year.

How much further will long-term government bond prices drop? That's what money market men were asking this week. But nobody had a satisfactory answer.

Prices of the long bonds have already sunk quite a bit since Mar. 8, when the Federal Reserve System stopped supporting them above par. At the start of this week, the Victory 2 1/2s—the longest bank-restricted issue—were down close to 98% of par; and the longest issue that banks are allowed to buy was only a little bit above par (chart, above).

However, the pressure on government bonds has increased since the Federal removed its temporary support of the market to encourage conversion of marketable 2 1/2s into nonmarketable 2 1/2s (BW-Apr. 7 '51, p26). By the middle of this week, bids for the Victories had dropped to levels as low as 97 1/2%, and, at the same time, bids for the bank-eligibles had slumped to as much as 5/16 of a point under par.

A couple of months ago, such prices would have seemed incredible to money market men, used to years of central bank support of bond prices. Long-

term Treasurys haven't been below par since September, 1939.

- **End in Sight?**—But now government bond dealers say it can't go very much further. Here's how they reason:

The Treasury has about \$39-billion of marketable issues maturing or callable this year. So it has a lot of refunding to do. But you can't find buyers for refunding issues as long as bond prices are falling. They're afraid of losing money.

According to a widely accepted theory among money market observers, the Treasury and the Federal have agreed to let the bond market work out its own price level until about mid-May. Meanwhile, the Fed retains its responsibility for keeping the market "orderly"—that is, picking up small offerings of bonds if prices show signs of dropping too fast.

The Federal hopes the market will have stabilized by mid-May. That will give investors time to recover confidence before the Treasury announces the terms of its big refundings.

- **It Might Mean Fed Support**—If the market hasn't found a solid bottom by then, this theory runs, the Fed will

have to come into the market to support bond prices, in order to be sure investors are in a receptive mood when the refunding terms are announced.

However, that means the Federal would be pumping up bank reserves—which certainly conflicts with its role as regulator of credit. How will the Fed be able to reconcile its two jobs? A lot of people would like to know.

The market has several weeks to prove whether or not it can find its own bottom.

Some dealers say that most of the recent selling has been by traders who hope to buy cheap later and ride up for profits. Certainly the volume of government bond trading hasn't been very large lately.

You're not likely to see much more selling of long-term bonds by institutions. They would take too much of a loss. They're more apt to hold on to their bonds until prices improve, or until the Treasury makes another offer of nonmarketable 24s.

Weakness in Governments Hits Preferreds

Corporate bonds aren't the only securities that have been moving downwards lately in step with the government bond market (page 132).

Preferred stocks have also been adjusting themselves to the increasingly higher yields that have developed throughout the national money rate structure since the Federal Reserve-Treasury anti-inflation program got started. And it's been a pretty drastic readjustment—as

the price sampling below shows.

But this was to be expected. Broadly speaking, preferreds are just as much "fixed interest" issues as bonds are. And it's traditional for them to take their cue from the price action of the bond markets.

Are they apt to move much lower? That's still anyone's guess. But one thing is certain. Preferred stock prices aren't going to harden significantly until the Treasury market stops edging downwards.

Preferred Stock Issue	1950 High	1950 Close	1951 High	Recent Price	Recent Price vs.	
					1950 Close	1951 High
Allied Stores 4%	\$100.50	\$99.62	\$101.00	\$94.00	-5.6%	-5.9%
Allis Chalmers 3 1/4%	99.87	99.62	100.00	95.50	-4.1	-4.5
American Can 7%	190.00	181.25	185.00	171.38	-5.5	-7.4
American Locomotive 7%	101.00	100.75	105.00	100.75	-4.1
American Smelting & Refining 7%	169.75	166.25	167.00	154.12	-7.3	-7.7
American Sugar Refining 7%	136.50	133.00	138.00	131.00	-1.5	-5.1
American Tobacco 6%	158.00	151.00	154.00	141.25	-6.5	-8.3
Atchison, Topeka & Santa Fe 5%	111.12	111.12	115.85	110.50	-0.6	-4.6
Atlantic Refining 3 1/4%	105.37	103.00	105.50	99.25	-3.7	-6.2
Atlas Powder 4%	110.00	115.00	119.00	113.50	-1.3	-7.7
Bethlehem Steel 7%	156.00	149.50	155.75	147.00	-1.7	-5.6
Bristol-Myers 3 1/4%	105.50	105.00	105.75	97.00	-7.6	-8.3
Chesapeake & Ohio 3 1/4%	90.50	90.50	90.50	*82.00	-9.4	-9.4
Colgate-Palmolive-Peet \$3.50	101.50	96.00	100.50	93.00	-3.1	-7.5
Consolidated G., E.L. & P. 4 1/2%	117.50	113.50	115.00	110.87	-2.3	-3.6
Consumers Power 4 1/2%	113.25	111.00	113.25	108.75	-2.0	-4.0
Continental Can \$3.75	107.50	105.25	106.00	*94.00	-10.7	-11.3
Corn Products Refining 7%	187.50	183.50	186.00	171.00	-6.8	-8.1
Container Corp. 4%	106.50	105.00	106.25	100.75	-5.4	-5.2
Crown Zellerbach \$4.20	105.75	103.12	106.00	101.25	-1.8	-4.5
Dayton Power & Light \$3.75	102.25	96.50	99.00	92.25	-4.1	-6.8
Dow Chemical \$4	111.25	108.50	111.12	106.00	-2.3	-4.6
Eastman Kodak 6%	190.00	174.00	182.00	164.00	-5.7	-9.9
Food Machinery 3 1/4%	101.00	100.75	102.00	94.25	-6.5	-7.6
International Harvester 7%	181.00	176.00	179.00	166.00	-5.7	-7.3
Island Creek Coal \$6	142.00	138.00	139.00	136.00	-1.4	-2.2
Liggett & Myers Tobacco 7%	187.00	181.00	184.00	*167.00	-7.7	-9.2
May Department Stores 3 1/4%	100.00	97.50	101.50	96.50	-1.0	-4.9
Merck & Co. 3 1/4%	101.00	101.00	101.00	84.75	-12.1	-12.1
National Biscuit 7%	186.00	181.50	184.75	173.50	-4.4	-6.1
National Lead 7%	185.50	184.50	185.50	173.50	-6.0	-6.5
J. J. Newberry 3 1/4%	105.50	99.00	102.00	94.00	-5.1	-7.9
R. J. Reynolds Tobacco 3.60%	99.50	97.00	98.50	*88.12	-9.2	-10.5
E. R. Squibb \$4	113.00	107.75	109.25	*101.50	-5.8	-7.1
Standard Brands \$3.50	96.75	92.12	96.00	89.12	-3.3	-7.2
Sylvania Electric Products \$4	88.62	84.50	95.50	*90.50	+7.1	-5.2
Union Pacific \$2	54.00	50.75	52.00	49.25	-3.0	-5.3
United States Gypsum 7%	189.00	183.00	185.00	177.00	-3.3	-4.3
United States Rubber 8%	143.50	135.50	142.50	137.00	+1.1	-3.9
United States Steel 7%	151.50	149.00	153.75	143.75	-3.5	-6.5

* Bid price.

**BUILT
TO LAST!**

Eclipse
POWER
LAWN MOWERS

**ROCKET
20"**

Trade Mark
Registered U.S.
Patent Office



The popular favorite for the average lawn, Standard and Hi-Cut models.

- Rugged Balanced Construction.
- Dependable 4-cycle Power.
- Sharp Durable Blades.
- Power-driven Wheels, Reel, Sharpener.
- All-Weather Finish.
- Positive Action Clutch.
- Patented Floating All-Steel, Natural-Grip Handles.

You can depend on an Eclipse to deliver outstanding performance year after year. Exclusive features, durability, operating simplicity, handling ease and economy represent a value never equalled. They result from over 50 years devoted solely to designing and producing the world's best lawn mowers. Your dealer will show you why Eclipse is your best buy for '51 and years to come.

HOW TO HAVE A MORE BEAUTIFUL LAWN

This free booklet contains authoritative information on building and maintaining a beautiful lawn. Written by an acknowledged expert. Send for your copy now.



THE ECLIPSE LAWN MOWER CO.
Division of Buffalo-Eclipse Corporation
704 Railroad Street Proprietary, Illinois
Eclipse Power Lawn Mowers are manufactured in Canada by MAXWELL, LIMITED, St. Mary's, Canada

POWER LAWN MOWERS BY
Eclipse
A COMPLETE LINE OF
HAND AND POWER MODELS

Plant Location PUZZLE



HERE'S THE ANSWER

IN ONE SPOT GRDA OFFERS:



As low as 5.3 mills per kwh for industrial use. System capacity 135,000 kw.



At 20 cents per thousand pounds.



At 5 cents per thousand gallons for treated water, 4 cents per thousand for raw water. Pumping capacity 100,000,000 gallons daily.



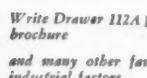
Tracts up to 50 acres available at the original low cost of a war surplus transaction.



In the center of the nation, in line with the general movement of industry inland.



Skilled and unskilled men and women ready and eager to work, free of "isms"—the best type of American citizens.



GRAND RIVER DAM AUTHORITY

VINITA, OKLAHOMA

An Agency of the State of Oklahoma

DEFENSE BUSINESS

Curb on Profits

Washington, worried about lagging stabilization program, may impose ceilings on earnings as a new anti-inflation weapon.

The government may slap a lid on your profits this year. If it does, you will probably end up with much less than you made in 1950.

The scheme is not a Fair Deal brainchild. It originated with Charles E. Wilson and Eric Johnston, who are worried about the way the stabilization program is bogging down. They feel that some curb on earnings must be added to the government's anti-inflation arsenal. Without such a curb, neither labor nor the farmer can be sold on restraints.

For a while, they considered putting the profits limitation into the manufactured goods orders just coming out of the Office of Price Stabilization. But Director Miko DiSalle turned thumbs down on that.

• **OPS Yardstick**—The hold-down on profits—if adopted at all—will still work through OPS. But it won't be laid down clearly in any one order. The curbs will be wrapped up in the standards the price-controllers will use to approve or reject requests for relief.

Inevitably, a great many businesses will find their profit margins shrinking. For one thing, there is nothing in sight to keep wages from continuing their climb. For another, the forthcoming manufactured goods order will limit the materials cost increases that can be added to selling prices to the last half of 1950—or to Mar. 15 at the latest.

But even though a business' profit margins may be squeezed between the required ceilings and rising costs, relief would be granted only if the stabilizers find that profits are "not unreasonable."

• **What's Reasonable?**—Tentatively, it has been decided that standards of reasonableness should be worked out for each industry, taken as a whole. Right now, the stabilizers are taking their cue from the Excess Profits Tax Act of 1950. They would consider 85% of the 1946-49 earnings average as fair or normal.

So if current profits of all the firms in, say, the bicycle industry tot up to less than what the government calls reasonable, a price increase would be permitted. Each bicycle maker would benefit from the hike—even the fat cats paying excess profits taxes.

On the other hand, if the profits of an industry come to more than 85% of the postwar average, no firm gets a break.

• **Pros and Cons**—OPS admits that this scheme could leave a lot of hardship cases in the stew, while granting extra windfalls to outfits already enjoying record earnings. They would permit marginal producers to reaply for relief on other, special grounds.

The stabilizers, however, are not wedded to this version. It's just a working draft so far. To put the principle of profit limitation across, they would be willing to drop the industry-wide provision, try to apply the excess profits standard, on a company-by-company basis. That way they would be granting price increases only to a firm that is not—and will not be—paying excess profits taxes.

CHECKLIST

Of Defense Regulations

The following listing and condensed descriptions cover all the material and price-control regulations issued by the defense agencies during the preceding week.

Full texts of the material orders may be obtained from National Production Authority, Washington 25, or from any Dept. of Commerce regional office.

Full texts of the price orders may be had from the Office of Price Stabilization, Washington 25, or from the regional OPS office in your area.

Materials Orders

Iron and steel: Requires users of ferro-alloys to submit monthly "melting schedules" for analysis by NPA. M-1 as amended (Apr. 6).

Copper: Allocates copper to electric power utilities for maintenance and expansion of powerplants and distribution and transmission lines. M-12 and M-50 as amended (Apr. 9).

Controlled Materials Plan: July 1, 1951, formally set as starting date for CMP. The plan will allot steel, copper, and aluminum to producers on basis of detailed requirements submitted in advance for the manufacture of goods needed for the defense program.

Construction: Prohibits the beginning of new construction on swimming pools and tobacco warehouses. M-4 as amended (Apr. 16).

Waterfowl feathers: Reserves entire

supply of goose and duck feathers and down for defense purposes. M-56 (Apr. 16).

U.S.-Canadian priorities system: Extends to Canadian companies the right to apply for MRO assistance and designates Canadian "distributors and importers" eligible for priority aid. Reg. 3 as amended (Apr. 16).

Tanning material: Provides for conservation of vegetable tanning materials by prohibiting its use by a processor for any purpose other than provided in M-57 (Apr. 16).

Maintenance repair and operating: Removes certain scarce items from list of products obtained by defense order rating (DO-97) for maintenance, repair, and operating supplies. Reg. 4 as amended (Apr. 16).

Mineral exploration: Sets forth regulations and terms under which the government, through Defense Minerals Administration, will help finance the cost of searching for new sources of certain strategic and critical metals and minerals. MO-5 (Apr. 6).

Price Orders

Bunker fuel: Establishes a ceiling based on the highest price charged for any size, grade, grouping or other classification of coal sold for direct use as bunker fuel during the base period (July 1, 1948 through June 30, 1949). Effective Apr. 10. CPR 21 (Apr. 10).

Timber (stumpage): Exempts all sales of timber (stumpage) from the general ceiling price regulation. Effective Apr. 12. GCPR, Sup. Reg. 17 (Apr. 10).

Tallow: Amends fats and oils regulation to permit payment of a premium of $\frac{1}{4}$ ¢ to $\frac{1}{2}$ ¢ a pound for tallow of a quality that bleaches to a desired light color. Effective Apr. 12. CPR 6, Amdt. 4 (Apr. 10).

Experimental chemicals: Exempts certain rubber, chemical and drug commodity transactions, including experimental chemicals and small (under \$1,000) sales of new chemicals from price controls. Also exempts hog cholera virus and antihog cholera serum. Effective Apr. 16. General Overriding Reg. 3 (Apr. 1).

Natural gas: Adds natural, petroleum, casinghead and refinery gas to the wholesale petroleum products pricing regulation, permitting long-term contracts to operate in accordance with contract provisions. Effective Apr. 16. CPR 17, Amdt. 1 (Apr. 11).

Grain products: Amends general ceiling price regulation to permit millers and processors of flour and other grain products to establish ceiling prices that reflect actual grain costs during the base period (Dec. 19-Jan. 25), rather than base period delivery price. Effective Apr. 12. GCPR, Sup. Reg. 18 (Apr. 10).

Wool yarns and fabrics: Manufacturers of wool yarns and fabrics to have until May 5 instead of Apr. 16 to put into effect new ceiling prices using pre-Korean selling prices, plus material and labor increases incurred from June 25 to Dec. 31, 1950. CPR 18, Amdt. 1 (Apr. 13).

Bite on Steel

Increasing output won't help the "free market" much. DPA and CMP are all set with bigger allocation programs.

Mobilization demands on steel are running neck and neck with the industry's increased output. Result: The supply of "free market" steel keeps dropping.

That was obvious this week when the Defense Production Administration revealed the size of its steel allocation programs for May and June.

During May, about 1.2-million production tons of steel will be allocated to 19 essential and defense-supporting programs; that's about 18% to 19% of the steel available.

During June, however, about 1.5-million tons will be allocated to 23 programs; that is roughly 24% of the supply.

Add in the military take—estimated around 13%—and you see that by June the "free market" will get only about two-thirds of the supply of finished steel available.

CMP Hike: Under the Controlled Materials Plan that begins in July, even more of the total supply of steel will go under allocation—tied to specific end products.

The following list shows DPA's steel tonnage allocations for May and June. Steel will be allocated to farm machinery makers, even though tonnages aren't yet fixed.

	May (tons)	June (tons)
U. S. freight cars	288,500	308,000
U. S. locomotives	36,688	40,000
Canadian freight cars	7,372	8,000
Canadian locomotives	3,478	2,841
U. S. lake boats	13,300	15,000
Canadian lake boats	1,852	2,238
Barges, towboats	23,700	23,000
Oil country goods	141,750	140,000
Well-head equipment	17,000	17,000
Steel containers	66,000	66,000
Electric power facilities	90,000	90,000
Heavy power equipment	95,000	95,000
Maritime ship construction ..	18,740	30,950
Maritime ship repair		9,000
Public roads	151,000	150,000
Foreign programs—ECA, Office of International Trade		35,000
Mining machinery		20,000
Low voltage distribution	7,500	7,500
Fluid milk containers	3,900	3,900
Schools		24,869
Hospitals		16,465
Highway tank trucks	2,013	2,013

5 WAY } with a
Gain } **LORAIN**
CRANE



A Lorain Crane has produced these five outstanding advantages at the Peoria, Illinois plant of Caterpillar Tractor Co. . .

Gain } **RELEASED FACTORY SPACE . . .**
1 } Former methods required inside unloading and storage. Lorain Crane method traded costly factory area for low cost yard storage.

Gain } **NEW, EFFICIENT YARD STORAGE . . .**
2 } Established a complete, new unloading-storage cycle . . . from railroad cars direct to yard stock pile. Also loads yard trailers to fill shop orders.

Gain } **LIFTS, HAULS BULKY 8500 LB. LOADS**
3 } Only their Lorain Crane can handle the big, bulky "Cat" structures weighing up to 8500 pounds. It unloads — then averages 500 feet travel to storage areas.

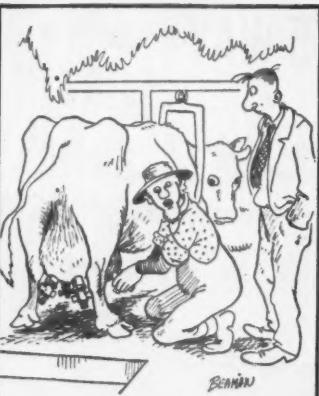
Gain } **300 HR. PER MONTH EFFICIENCY . . .**
4 } All the Lorain's advantages are on call every shift . . . the same reliable efficiency day or night, winter or summer. Lorain has averaged 300 hours per month for the past 2½ years.

Gain } **A ONE-MAN YARD "CREW" . . .**
5 } Extra duty jobs are many at the "Caterpillar" plant. The Lorain covers all operations — inside and out — setting structural steel or machinery, spotting poles, handling pipe, bar steel, etc.

Write for booklet entitled "LORAINS IN INDUSTRY" . . . see how you can gain with a Lorain crane on your operations!

THE THEW SHOVEL CO., LORAIN, OHIO





*"About the only thing
Aeroquip Self-Sealing
Couplings can't shut off is
today's flood of orders."*

Aeroquip

FLEXIBLE HOSE LINES
DETACHABLE, REUSABLE FITTINGS
SELF-SEALING COUPLINGS
"BREAKAWAY" • HYDRAULIC HOSES
AEROQUIP CORPORATION, JACKSON, MICH.

Why let travel restrictions **RESTRICT** **YOUR BUSINESS**

Remember the war years? All travel facilities were jammed. You couldn't get reservations, couldn't get men to where they had to be. This need not happen to you.

Prepare your company now, with a private Cessna 170. This spacious and comfortable 4-place plane is fast, safe, easy to fly, economical to use. You can make your own schedules, save weeks of executive travel time. And—the Cessna 170 costs thousands of dollars less than any other 4-place, all-metal plane on the market. Let your Cessna dealer show you how practical it is... how its use, pays for itself in man-hour-savings alone.



MAIL THIS COUPON TODAY!

Cessna Aircraft Co., Dept. BW-4, Wichita, Kan.
I want to know more about the all-metal Cessnas and the man-hours they save. Please send me detailed information.

NAME _____

ADDRESS _____

CITY _____ STATE _____

Position _____



"We can afford civilian production, and we ought to have it—at reduced levels."

NPA's FLEISCHMANN TELLS

What CMP Will Be Like

Starting July 1, American industry will be operating largely under a government system of raw materials distribution, the Controlled Materials Plan. Making CMP work—seeing to it that industry can and will do its mobilization job—is the task of one of Washington's youngest bureaucrats, 42-year-old Manly Fleischmann.

For all his youth, Fleischmann is an old hand at industrial controls. He left his law practice in Buffalo 10 years ago to help the mobilizers of World War II. He served with the War Production Board until he joined the Navy. He sat in on the planning for the original CMP, helped steer it around legal pitfalls. He has been with the National Production Authority since its organization last September, has been its administrator since January.

BUSINESS WEEK took its electronic recorder to Fleischmann's office, asked him what the new CMP would do to—and for—industry.

BW: During the war, I used to cover CMP to some extent as a reporter. What I'm not clear on now is why—in a period when we are maybe going to use only something like 15% of the metals for munitions purposes—we're planning to use administrative machinery of a type that was designed essentially to handle the whole metals-using economy.

FLEISCHMANN: Well, there are three important reasons.

In the first place, it is true that the direct military program will take a comparatively small part of over-all ingot measurement—maybe 15% or 20% at the height of the program. But the requirements of that program are

really important, not in terms of ingots, but of particular shapes and sizes and particular alloys. Presumably the program will never take more than 15% or 20% of the sheet, if that much. But it will take a much larger percentage of plates, structural shapes. And it will take a percentage running way up near 100% of certain alloying elements.

BW: Is it worth-while to take on a procedure that controls all the sheet and all the ingot just to catch hold of certain types?

FLEISCHMANN: There are other reasons. As we know from World War II, the Controlled Materials Plan cannot work well during its first quar-

You're lucky to have
such a quiet office

It isn't luck!.. It's
our FIBRETONE*
Acoustical Ceiling



You'll be surprised how little it costs to reduce
disturbing noise and increase productive efficiency—
with Fibreton Ceilings. Let our acoustical engineers convince you with an estimate.



Fibreton Acoustical Panels are
easily, quickly installed over
new or existing construction.

THOUSANDS AND THOUSANDS of "noise traps" to help end harmful noise—that's the secret of Fibreton, one of several types of Johns-Manville Acoustical Ceilings.

Each 12"-square unit of Fibreton contains hundreds of small cylindrical holes drilled in the sound-absorbing material. As sound waves strike the ceiling, they enter the "noise traps" where the sound energy is dissipated.

Fibreton is pre-decorated, attractive in appearance, can be painted and repainted, and is designed to meet the most modest budget. Available with flame-resistant finish if desired.

Other J-M Acoustical Ceilings include Transite*, made of fireproof asbestos; and Sanacoustic*, perforated metal panels backed up with a noncombustible, sound-absorbing element.

Whatever your noise problem, and whatever the type of interior, there's a J-M acoustical material that is exactly right to give you the best in sound control.

You'll be under no obligation to let us answer two executive questions: "What will the job cost?" "How soon can you do it?" For a prompt estimate, or free book on "Sound Control," write Johns-Manville, Box 290, N.Y. 16, N.Y.

*Reg. U. S. Pat. Off.



Johns-Manville

Movable Walls—Terraflex and Asphalt Tile Floors—
Corrugated Transite*—Flexstone* Built-Up Roofs—Etc.

Greater Productivity

the reason why most people
buy New Britain Automatics



clues:

Turning the "Searchlight" on Opportunities

EMPLOYMENT

Positions Wanted

Plant Manager Production Manager; Twenty years in diversified manufacturing. Only interested in a permanent connection with a progressive firm. Age 46. Will relocate. Box 9513.

Position Wanted with progressive company. Graduate Engineer—age 42. Thirteen years' experience Industrial Sales Engineer. Six years Sales Manager in metalworking. After leaving Production for small tools manufacturer. Handled personally all office-factory accounts. Box 9513.

Selling Opportunities Wanted Washington, D. C. Representative Available 15 years experience in selling to the Federal Government Departments. Contracts, Specifications. Priorities. James T. Hardy, Barr Bldg., Washington 6, D. C.

Industrial Sales Consultant leaving May 1, for Germany and Switzerland. Will undertake Market Surveys, Production Studies, Establishments, Agencies, and other Confidential Work. References available. Box 9514.

SPECIAL SERVICES

Rental Counting Scales for Inventories. Advice requirements as to bench and floor models in mind. We may submit our bid. We can supply from stock to you the most modern from a source near your plant. National Scale Company, 43 Mill Street, Springfield 8, Mass. BW-RS.

Need a market survey abroad? Thorough down-to-earth studies made in any country. Representatives all over the world. For details, write Overseas Business Services, McGraw-Hill International Corporation, 230 West 42, New York 18, New York.

Sales Letters—Persuasive, compelling, resultful! Folders, booklets, etc. Written by mailing expert. Paul Muchnick, 150 Nassau St., New York 7.

EQUIPMENT

Cafeteria, late industrial type, self-service style, used only 6 mos. Complete with refrigeration units, electric warmers, steam tables, display racks, etc. Stainless steel and enamel. Model A costs approx. \$12,000. Our price \$3,000 F.O.B. R. & H. Machinery Co., 1039 Southbridge St., Worcester, Mass.

BUSINESS OPPORTUNITIES

For Sale. Patent Rights for Fluid Driven squaring shear and press brake for sheet metal. Also a new line of O.B.I. presses. A good sound company can buy these rights for a small down payment and royalty. Address Box 9521.

Be first in your community to establish new type service business in fast growing field. Our machines are standard veneered plywood weekly. Equipment price from \$465.00 to \$6,750.00. H. K. Co., 101 S. 44th St., Philadelphia 4, Pa.

Manufacturers Attention: Newly designed and patented infant's garment with novel features, available on royalty basis. C. M. Dixon, 1463 Holton St., St. Paul 4, Minn.

Invest in agricultural land—see our big free Spring catalog. Bargains in many state equipped farms, attractive retirement homes, tourist courts, etc., many pictures. Write for free copy today. United Farm Agency, 2825 BW Main St., Kansas City 8, Mo.

BUSINESS SERVICES

Market Research

Specialists in Industrial Marketing Research. Determine for specific products—markets, market potential, relative importance of states, counties or territories. Fee basis. Write—John C. Spurr, Director—520 W. 42 St., N.Y. 18, N.Y.

BUSINESS SERVICES OF SYRACUSE

Use our office, address, telephone. We will check references, arrange interviews and reservations, etc. Business Services of Syracuse, 410 So. Salina St., Syracuse, N.Y.

ter. It takes at least a quarter, and perhaps two, for it to shake down into an efficient operation. Now, most of us came down here because we believed there was a possibility, at least, of a war.

BW: Having a CMP on hand is comparable to having a standby army?

FLEISCHMANN: That is correct. If a war should break out, we don't want them to be faced with a six months' delay in setting up that program.

Now a third and very important reason for starting CMP is this. You cannot successfully organize just a military program. You must have supporting industrial programs . . .

BW: More power to support more aluminum, say?

FLEISCHMANN: Yes, and more freight cars to carry the aluminum around, and more oil refineries.

BW: Doesn't your present DO system handle that?

FLEISCHMANN: There are only three ways, as far as anybody knows, to accomplish a distribution of materials.

One is to trust to luck. And, of course, if you did that, you would have a substantial military production . . . make no mistake about that. But it would be unbalanced, and you would have what we had in the early days of World War II—trucks without axles and that familiar kind of phenomenon. You would get a lot of military production, but it would not be on schedule. You would not have any supporting program. And you would have to pay very high indeed for it.

BW: And the second method?

FLEISCHMANN: The second is the priority system. That system works extremely well with the very limited military program on which we started out to use it. You will recall, however, what happened to the priorities plan in World War II. More tickets, more priorities were issued than there were materials or fabricating facilities available.

BW: How close are we to that point now?

FLEISCHMANN: We have not yet got to that point. The need to support basic industrial programs has compelled us to give priority assistance program by program. The total priority assistance we have given does not in any substantial number of cases exceed the available supply. But in many cases it is getting up over the halfway mark—and that is a danger point.

BW: Why?

FLEISCHMANN: Well, there is an uneven distribution throughout the country. The priority orders are largely placed with the suppliers located conveniently to the buyers.

BW: The breakdown, if there is one, comes when a customer with a

Air conditioning and manpower

Five years ago, we began to disarm. But the other fellow didn't. So now our side has some catching up to do.

This is going to take a lot of manpower. Manpower in uniform. Manpower in factories. Manpower everywhere.

It all adds up to harder work and longer hours. And especially for some of us.

Men in drafting rooms, for instance. And researchers, engineers, toolmakers, pattern builders and others like them. To say nothing of the managers who blaze the trail of mass production.

Air conditioning can help these men turn out more work more quickly. And it's the same air conditioning that helps make goods faster, better, cheaper.

At the outset of World War II, Carrier air conditioned a large drafting room. The result was that each draftsman turned out half again as much work. In effect, two men became three.

In another case, the air conditioning of a shop making finely-machined tools resulted in an 8% increase in production efficiency. Absenteeism dropped. And so did labor turnover.

Frequently, it's difficult to measure the benefits of air conditioning in exact percentages. But it is beyond argument that a man can do a better job when he is cool and calm instead of hot and bothered.

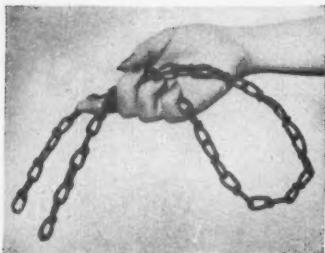
For example, we know from actual experience that in offices where heat would be oppressive, Carrier Room Air Conditioners help keep minds clear and contribute to wise management decisions.

We know also that in homes, these window units enable men and women to sleep through sultry nights and be better prepared for the day ahead.

From packaged air conditioning, easily installed, to large systems for whole plants and office buildings, Carrier puts into the hands of management a means of multiplying manpower.



AIR CONDITIONING • REFRIGERATION



CHAIN WITH A *velvet touch*

WHAT this out-of-the-ordinary chain does may give you an idea—may show you how American Anode can help you solve a problem. For it's typical of the "tricky" production jobs we do.

The chain has a special-type, long-lasting rubber coating that is proof against water and weather—that resists oil, gasoline and chemicals. You can see how those advantages protect metal items.

The chain doesn't jangle at all. The velvet-like coating prevents sparking—won't damage surfaces. One of its uses is safeguarding outboard motors attached to small craft. There are other uses for this unique chain.



It's another example of the wide range of products we can produce—typical of the applications for American Anode materials. Decontamination boots, plastisol gloves and many other civilian-to-defense items are more examples.

Wherever special coatings or plastisols (vinyl plastic paste) can be used to improve or make products, American Anode can be especially helpful. We can take over the design, manufacture and delivery of the finished product. If you're interested, write Dept. AF-3, American Anode Inc., 60 Cherry Street, Akron, Ohio.

*What can
AMERICAN ANODE
do for you?*

CRUDE AND AMERICAN RUBBER LATTICES, WATER CEMENTS AND SUSPENSIONS, AMERAN RESIN PASTES, COMPLETE MANUFACTURING FACILITIES

priority rating has to run from one supplier to another?

FLEISCHMANN: That is one breakdown. But you run into another difficulty in any priority system as soon as you expand it, as we have been doing. For every essential program that you support in that manner, it becomes just that much more difficult to operate at all for the equally essential program that is not given a priority.

For instance, we have given assistance to heavy power-generating equipment. We have not given that kind of assistance yet to other programs such as textile machinery or mining machinery . . . although there is one of the latter in the making. Now, as you decrease the area of free metals and supplies, it becomes almost impossible for the person operating in that area.

BW: When you get up to about 50%, you must give out all at once all the priorities you intend to give out?

FLEISCHMANN: That's exactly the crux of this matter. We are now at a time when the demands of the supporting program and the military program have reached a point where we must stop and audit the books.

One of the great assets of CMP is that it translates military and essential requirements into terms of steel content, aluminum content, and copper content. We compel a scheduling on a time basis and on a program of military needs in a way that wrings out the water from the military program. I really expect that metals will be loosened almost immediately because of CMP's scheduling effect.

BW: At present the military or military contractor is buying stuff it doesn't need because it doesn't know it doesn't need it?

FLEISCHMANN: It isn't that so much. Military personnel and contractors and subcontractors inevitably like to place orders for delivery as soon as possible. That's human nature. You can't beat it by a series of directives. You can only do it if you give them tickets for the material based on their demonstrated needs.

One reason I favor the Controlled Materials Plan is this: Right now, we are passing on a single program at a time. And anybody who has done that knows how persuasively and with what zeal and almost unanswerable logic it can be demonstrated that unlimited numbers of freight cars, farm machinery, refinery equipment, machine tools, and all the rest are necessary.

Now the Controlled Materials Plan compels us to sit down and add up the requirements of the programs and then to make the very difficult but essential decisions that have to be made, if we are not to sacrifice the whole economy to military and so-called essential programs.



"My guess is that very soon now the President will have to decide how much . . . is to be reserved for civilian production."

BW: How specific must these decisions be? Under the last CMP, the requirements committee took all these military and essential programs coming in to them, and they said: All right, here is 100% of the steel output, the copper output, and the aluminum output. How many of these things can we do with this 100%? And they slashed to make it fit.

FLEISCHMANN: That's right.

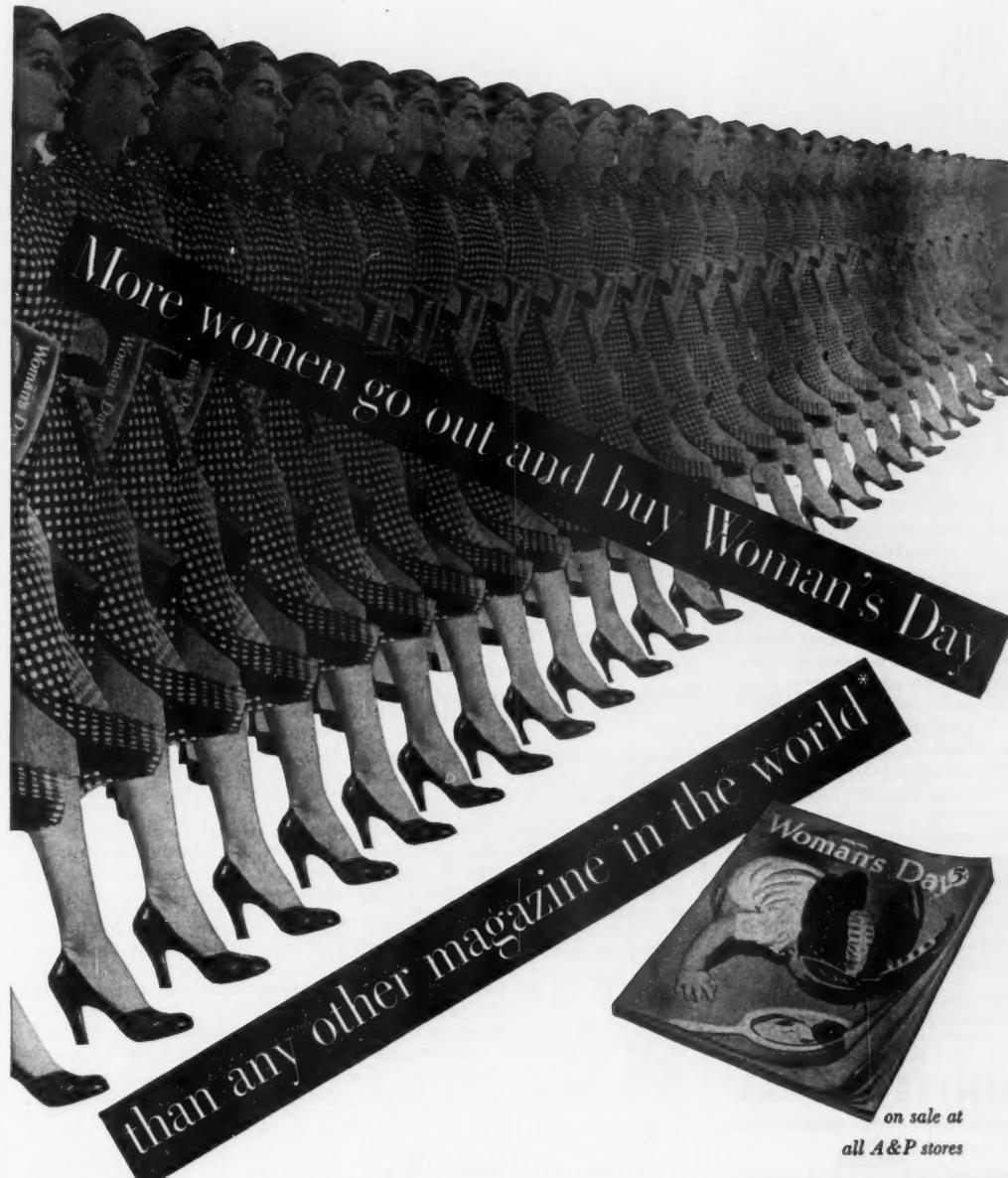
BW: This time, obviously, you are not working with a 100% base. Are you going to have some kind of over-all limits for controlled materials—50% of total output of a metal, 75%, 25%, or whatever?

FLEISCHMANN: I think that, if the planned requirements of the so-called essential programs were allowed in full, they would pre-empt the entire supply of the basic materials.

My guess is that very soon now Mr. Wilson or maybe the President will have to decide how much of the economy is going to be devoted to this military and industrial effort and how much is going to be reserved for civilian production—by which I mean primarily durable consumer goods and related stuff.

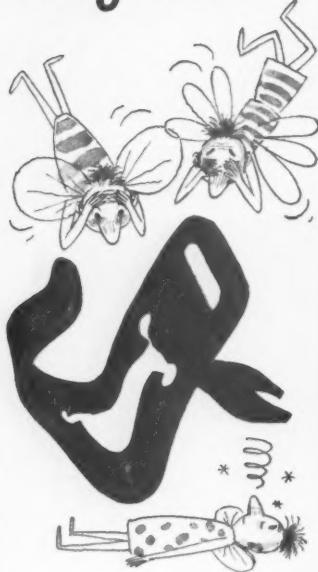
BW: Can that decision be put in the nontechnical sort of terms that you can lay on the President's desk? Can you set a definite percentage of the metal-using economy that we'll take? Or does it have to be 37½% of sheets and 27½% of . . . ?

FLEISCHMANN: No, I think that a few basic decisions could be made. For example, you could say that the country could almost certainly afford a comparatively high level of civilian production, say 60%, or 70%, or some such figure of the base period—which might



*3,750,000 average single-copy sales per issue . . . the world's largest single-copy circulation

This is a Bug Killer?



You bet it is... and more than that it's one of a large and growing family of bug-killers. This particular tubing and wiring fastener helps take the bugs out of the electrical system in your car. It holds wires and tubing firmly, without chafing, in the face of extreme vibration. A quick turn and — snap — costly machined parts are eliminated.

A good example of the thousands of fastening devices designed and developed by United-Carr engineers to do a particular job for a particular manufacturer, this tailor-made fastener speeds production, cuts labor costs and gives trouble-free performance.

That's why so many leaders in the automotive, television and appliance industries turn first to United-Carr — FIRST IN FASTENERS.

Before bidding on government contracts requiring fasteners or fastening devices consult your nearest United-Carr field engineer.

UNITED-CARR

United-Carr Fastener Corp., Cambridge 42, Mass.

MAKERS OF **DOT** FASTENERS

be the year 1950 or the year 1949. I am purposely not being definite because we have made no such decision.

Now I think it will be found possible—certainly with respect to steel, probably with respect to copper, and, at a very early date, with respect to aluminum—to say we can afford civilian production and we ought to have civilian production at levels reduced along those lines.

BW: So basically your thinking starts with the civilian side. We will have this much civilian supply. Then we say: How much military and supporting stuff can we manage to produce with what's left?

FLEISCHMANN: I think that is a really sound way to approach it. There would have to be adjustments. In some cases we'd have to cut the coat to fit the shoulders.

An example is in the radio and television field. There, up to the present time, some little cobalt has been required to make a speaker. Now I understand they are almost designed out of that. But it wouldn't do any good to say now that we are always going to have 70% of radio manufacture if that would use up 70% of the cobalt. Because virtually all the cobalt is needed.

BW: So the decision will run like this: You can have 70% of radio—except you can't have any cobalt.

FLEISCHMANN: That really is the kind of decision it seems to me that has to be made.

BW: Won't the President have to put a quantitative estimate on how far he's willing to see civilian production cut?

FLEISCHMANN: I think we would have to show him comparative balance sheets of materials. If you want so much civilian production, this is what you have to settle for in the essential field.

Then it would be our job to carry out that general policy.

Then I would face this kind of situation: The overall requirements of this essential program are, let us say, 25%, or 30%, or 40% too high. Then we would sit down with the requirements committee, and we might decide we could postpone utility expansion for a little while, or do with a little less refinery equipment for a little while, and so on.

BW: Say you cut free metals down to 70% of output. Will it be an across-the-board cut for everyone, or will it be X% for appliances, Y% for automobiles, and Z% for something else?

FLEISCHMANN: I don't pretend that all the details have been thoroughly decided on. If the radio people, for example, were unable to design out of the major use of cobalt, of course they would have to be cut deeper because there isn't any cobalt for them.



"Civilian limitations probably should be on end products rather than on parts."

Similarly for anybody who has to use nickel. They are going to feel a very heavy cut because the demands for nickel are so enormous in a defense program.

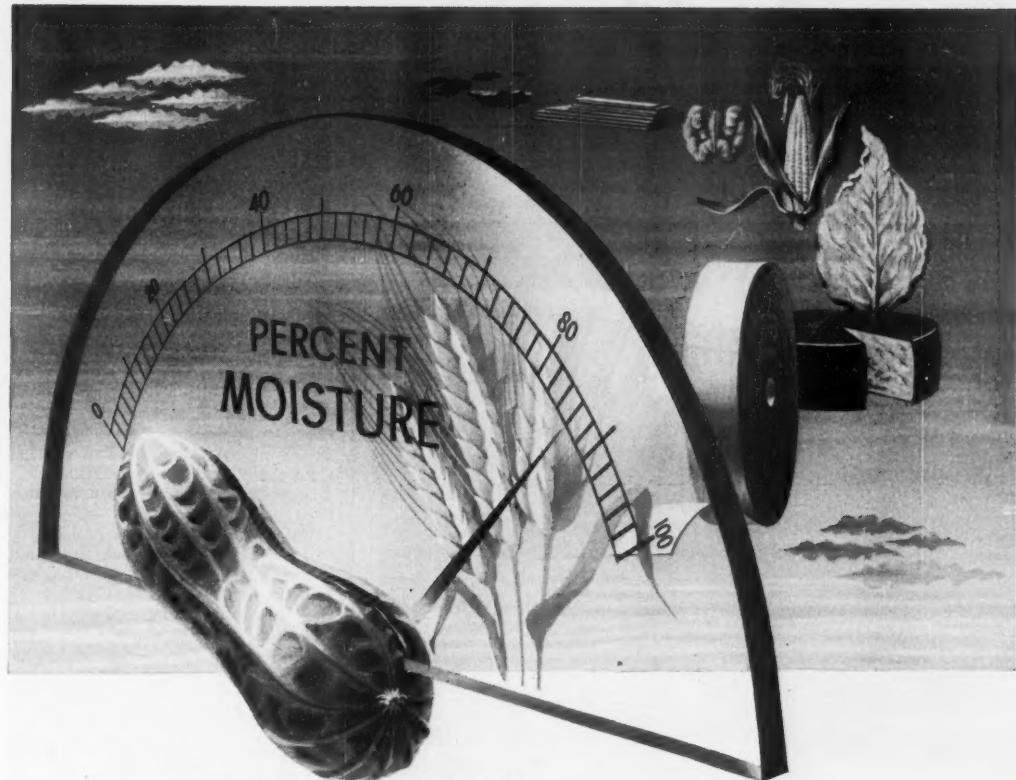
We do not want to make essentially determinations in this free area. The goal would be that everybody gets a fair share. We feel that, if the Controlled Materials Plan is adopted, the so-called death sentence regulations can largely be done away with.

Now take aluminum venetian blinds. There are some small concerns, I am told, with one or two machines; they can't make anything else; they can't shift to wood or anything else with the machinery they have. We think that that fellow should not be put out of business. Once you guarantee the essential needs through the Controlled Materials Plan, we think the civilian producers have a right to compete for what's left—that free area—with everybody else.

BW: Are you going to stick to your present type of limitation orders, which don't set a unit-production limit but do set a metal-use limit?

FLEISCHMANN: I consider it unlikely that we will stick to our limitation on fabrication. At the present time, every individual can use only a specified percentage of the steel, copper, and aluminum that he used before. Now we think in the civilian area the limitation probably ought to be on the end products rather than on the parts-fabricating level. Not necessarily on the number of items that he might make, but maybe on the amount of steel, let us say, that could be incorporated in automobiles.

BW: In other words, you would put a limitation on the assembler of cars.



Profitable *INSIGHT...*
into the world of costly moisture

In many materials and products, hidden moisture means money. It can cost money. Or save money. For instance:

"Kiln dried" lumber, you'd suppose, would glue up perfectly. Yet . . . it often separated. Rejects were high. So were costs. But measuring moisture showed the cure: *uniform* moisture is essential.

Today, most lumber is graded on a moisture basis. So are wheat, rye, oats, corn, beans, hops. You know yourself there's a degree of moistness that's just right for tobacco—and the same is true of nuts, cottonseed, coffee, cheese, even coal and iron ore.

Why this growing trend toward moisture measurement? Because modern instruments make it quick, easy, economical. Just apply electrodes and note a pointer. Today's portable moisture meters are self-contained, light weight, ruggedly built.

Development of these devices from laboratory instruments into sturdy portable tools is a typical Weston achievement. And the same engineering experience and technical skills are on tap to help solve new problems in precise measurement. Weston Electrical Instrument Corporation, 580 Frelinghuysen Avenue, Newark 5, N. J., manufacturers of Weston and TAGliabue Instruments.

**These and similar materials can be checked
 for moisture the quick electrical way:**

Wood • Nuts • Powdered Coal • Grain • Chemicals
 Iron Ore • Biscuits • Beans • Plastic Molding Powders • Coffee • Cheese • Cottonseed • Fabrics
 Seeds • Leaves • Flue Dust • Gums • Shellac
 Starch • Leather



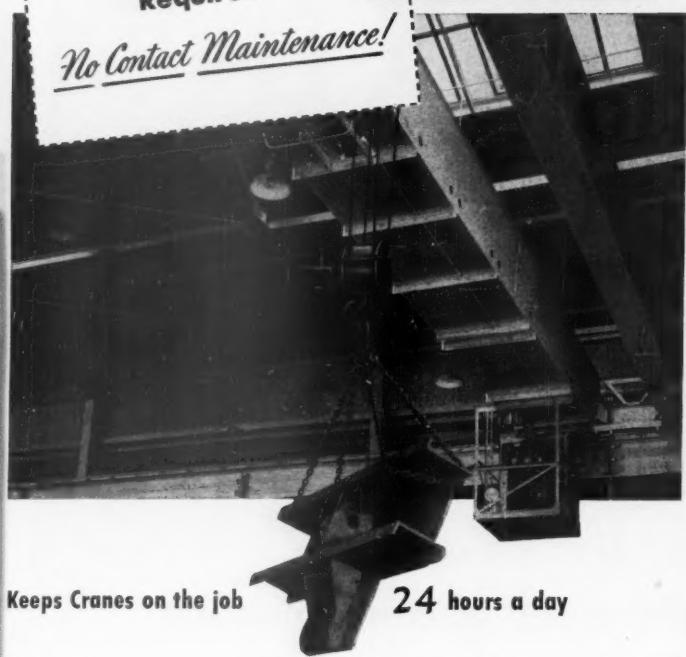
WESTON Instruments

TO INDICATE . . . RECORD . . . CONTROL

Avoid Crane Shutdowns

New Whiting
Magnetic Control
Requires

No Contact Maintenance!



Keeps Cranes on the job

24 hours a day

• Here is a crane you can operate 24 hours a day without stopping to file or dress the control contacts. The new Whiting Magnetic Control has solenoid contactors with silver-alloy contacts that never need filing or sanding. Eliminates expensive, time-consuming contact maintenance.

The new Whiting Magnetic Control replaces bulky drum-type controllers with master switches that occupy very little space and give the operator full vision in all directions. In addition, heavy over-engineered clapper contactors are

replaced by modern, compact solenoid contactors—rated to fit the motor. Heavy slate panels and sheet metal enclosures are eliminated. Yet the new Whiting Magnetic Control is only slightly more costly than drum-type control, and much less expensive than conventional magnetic control.

Your new Whiting Crane can be equipped with the new simplified Whiting control system, or with conventional manual or magnetic systems. Furthermore, Whiting will convert manual-type cranes to this new magnetic system.



Write for Whiting
Magnetic Control
Bulletin, No. 72.

WHITING

OVERHEAD TRAVELING CRANES

Also: Hoists, Jib Cranes, "TRAMBEAM" Monorail Systems, Conveyors, Foundry Equipment, Railroad Equipment, Metal-Working Machinery, Swenson Evaporators and Spray Dryers.

Whiting Corporation
15661 Lathrop Ave., Harvey, Illinois
Offices in Chicago, Cincinnati, Detroit,
Houston, Los Angeles, New York, Philadelphia,
Pittsburgh, and St. Louis.
Representatives in other principal cities.
Canadian Subsidiary: Whiting Corporation
(Canada) Ltd., Toronto, Ontario. Export
Department: 30 Church St., New York
7, New York.

let him turn out only so much—either so many cars or so much tonnage of metal. But an axle manufacturer, for instance, would be told simply he could make what he can sell.

FLEISCHMANN: That's it. You let the components flow comparatively freely on the theory that you limit their market.

BW: I see here a major difference between the new CMP and the old one. You have a job to do that had no equivalent before. Here is a particular program—let's say railroad locomotives. You've got to decide: Which area does it fall into? The area that gets allotments or the area that we consider civilian?

FLEISCHMANN: A short time ago I was asked how far we would go with CMP. I said that we certainly would not include consumer durable goods—not even at the lowest level of CMP. At the upper level we certainly will include the military, and we certainly will include the industrial expansion program.

BW: Late next month, as I get it, you will have to lay some alternate balance sheets on the President's desk and say: Which is it, boss? And until then you won't know who gets CMP allocations and who doesn't?

FLEISCHMANN: Well, I . . .

BW: Except in a preliminary sort of way . . .

FLEISCHMANN: Well, I think it is fairly . . .

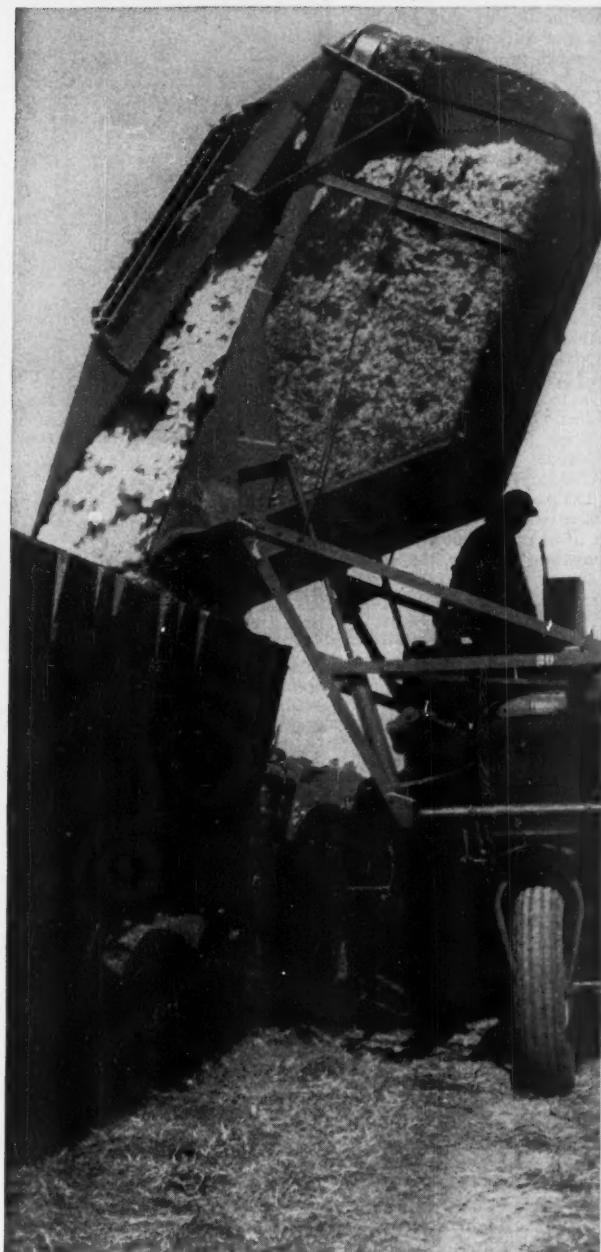
BW: You could answer everything except the marginal ones.

FLEISCHMANN: You could give as good a guess as I could today. The programs we are supporting now, in all probability, we will continue to support, and there will be a few additions. To my way of thinking, we would certainly add a very substantial number of tight components—bearings, etc.

BW: Fractional horsepower motors are used on battleships. And they are also used in vacuum cleaners and washing machines. What do you do? A 100% allocation for them?

FLEISCHMANN: I don't want to answer this specifically because we haven't made this decision, but I don't think there would be anything inconsistent in supporting the manufacturer

The Pictures—Cover by Bob Iscar. Acme—23 (lt., rt.), 27, 28, 34, 38; Harris & Ewing—22; Int. News—23 (ctr.); Keystone—24; McGraw-Hill World News—156, 157; Rae Russell—70, 71 (top lt., bot.); Standard Oil Co. (N. J.)—94, 95, 96; Wide World—21, 43, 153; Dick Wolters—26, 56, 57, 102, 104, 108, 109, 128, 129, 136, 140, 142, 146.



The problem:
60% more cotton
... and the
PENNSALT CHEMICAL
answer

Our Government asked growers to raise 60% more cotton this year. They replied, "Yes, but where will we get the additional insecticides?"

This was a good question, for the newer organic insecticides commonly used in the cotton fields were scarce. Something had to be done!

Pennsalt looked for a way to make the supply of scarce insecticides go further. Calcium Arsenate, a widely used control agent, was considered. However, although plentiful, it had two drawbacks. It was neither completely effective by itself, nor would it mix well chemically with the more powerful, scarce organics.

Pennsalt solved this problem with a special, neutral grade of Calcium Arsenate that would "smarry" with the scarce organic insecticides—thus extending the supply of effective insecticides for the protection of a 60% larger cotton crop.

Production-boosting, cost-lowering "answers" like this are frequent at Pennsalt. Pennsalt Chemicals are solving problems in nearly every major industry . . . in agriculture . . . and in departments of Public Health. Perhaps they can help to answer your problem. Specific inquiries are invited. Pennsylvania Salt Manufacturing Co., 1001 Widener Bldg., Philadelphia 7, Pa.



PENNSALT
CHEMICALS

serving
Industry • Agriculture • Health • Home

KNOW HOW **TRAIN NOW**

AIDS TO INDUSTRY PROGRAM

A bulletin presenting a complete Pennsalt Cotton Insecticide line has just been published. Mail the coupon if you'd like a copy.

Pennsylvania Salt Manufacturing Co.,
1001 Widener Bldg., Philadelphia 7, Pa.

Name _____

Address _____

COMPANY _____

TITLE _____

PROGRESSIVE CHEMISTRY FOR OVER A CENTURY

DAILY OVERNIGHT SERVICE

Ship Michigan via

MICHIGAN EXPRESS, INC.

GENERAL OFFICES • GRAND RAPIDS
Fred G. Timmer, President
TERMINALS
CHICAGO • GAIT • HOLLAND • MUSKEGON
GRAND HAVEN • GRAND RAPIDS • KALAMAZOO
BATTLE CREEK • HASTINGS • JACKSON • DETROIT

gives a
LIFT
to your work

Here's a streamlined pencil that moves work along fast. Try this thinner, lighter, modern pencil with the special lubricated lead that writes blacker, clearer, cleaner. A request on your business letterhead will bring you a sample.

RICHARD BEST PENCIL CO.
Dept. B Springfield, N.J.

Futura
THE MODERN PENCIL

by the makers of OMEGA and ROYAL SCOT Pencils

of bearings and getting him his material whether the bearing went into an automobile or a battleship.

BW: You will give him all he can use?

FLEISCHMANN: Within reason. The components manufacturer would be controlled by his market as soon as the system became operative. And that seems to me, on the whole, to be the best way to do it.

BW: Can we back off a bit on this whole thing? Suppose I am a manufacturer of toasters or electric washing machines. How is my life going to be different next October or November . . . when the plan is in effect . . . from what it is today—as far as getting materials is concerned?

FLEISCHMANN: Will you amend the question to ask me also what it will be a year from October? Then we can cover the whole thing.

BW: Consider it amended.

FLEISCHMANN: As between today and next October, my hope and belief is that there will be no substantial difference. If we carry it out with something approaching accuracy, the manufacturer of the consumer item will continue to get a reduced but fairly certain share of the materials he needs—saving only the tightest ones like cobalt. Whether he will get as much as now can't be predicted until we see the balance sheet. At the present time automobiles are permitted to use 80% of what they used in the base period. I believe that that will have to be cut to at least 70%, and perhaps further.

BW: But within that percentage?

FLEISCHMANN: Within that percentage, I think you should find it at least as easy—and perhaps easier because of wringing the water out of the essential programs.

BW: It will still be true that the most valuable guy in my organization is the purchasing agent—if he can lay his hand on the stuff . . .

FLEISCHMANN: . . . And they are very resourceful.

BW: Yes. And I will be using conversion metal, and I will be paying some premium prices here and there where I can lay my hands on it. Next October there won't be too much difference in those respects?

FLEISCHMANN: No, I don't think so. About a year from October, things will certainly begin to ease up in many lines because we will have very large additional steel capacity and aluminum capacity. Some extra copper . . . not much, but some . . . and there will be additional commodities of various kinds, like chemicals, that will ease things considerably.

BW: Well then, to the manufacturer, the fact that you are installing CMP doesn't mean anything terribly important if he is in the civilian side. If



"We don't think the maker of aluminum blinds should be put out of business."

he is in the essential side, either military or supporting—it probably means he is going to have to hire more bookkeepers and fewer purchasing agents. He can get his materials much easier, but he will have to keep more records.

FLEISCHMANN: In the essential field, I would put it this way. Within reasonable limits, CMP should assure a steady flow of materials, at least of the basic kind, geared to whatever program is authorized by the government for those essential programs.

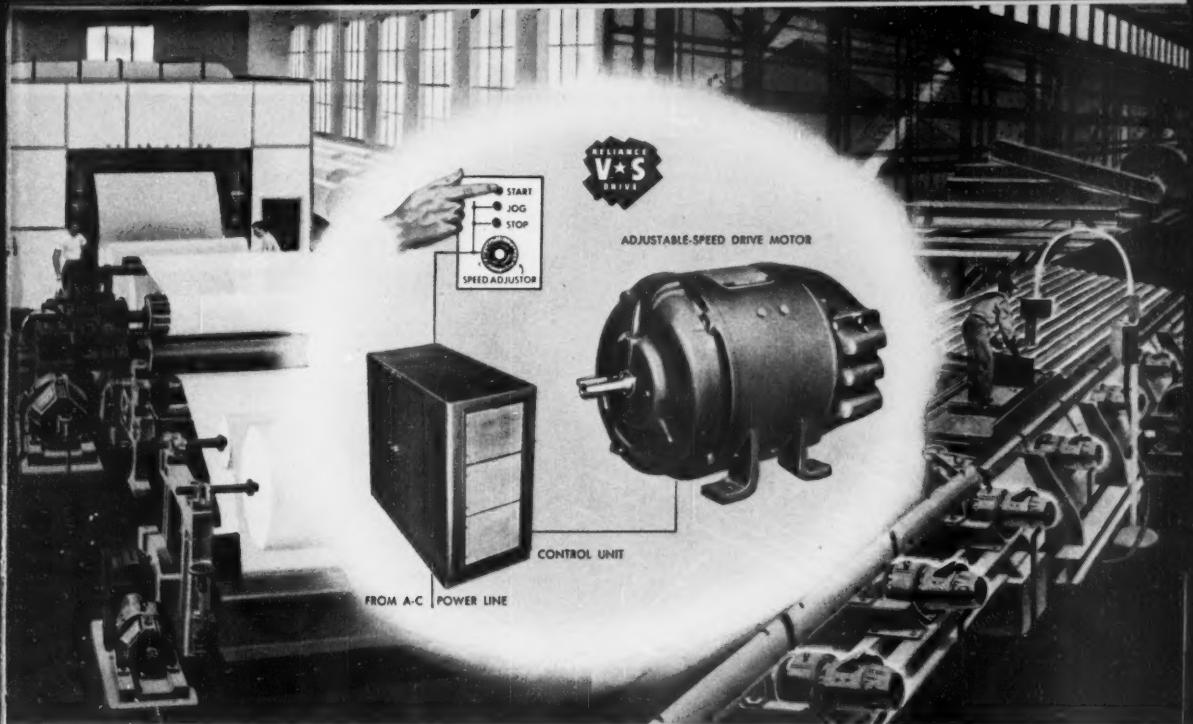
BW: I guess it's usually good administrative practice to transfer your troubles from the factory floor into the bookkeeping office.

DEFENSE BUSINESS BRIEFS

Trucks for civilian use may get their own DO priorities. Defense Transportation Administration has proposed a special program to provide truck builders with alloy steel for gears, frames, and axles.

New-type complaint has reached NPA: Makers of compressors say their customers aren't making full use of DO ratings. Practically the entire output of the industry goes to customers who are entitled to a priority, but only a quarter of the orders carry a DO. As a result, manufacturers can't extend the ratings to get supplies for themselves.

Industrial diamonds, of the high grade needed for jet plane production, are becoming scarce. But there's not much use trying to do anything about it until more is known about imports and needs, the diamond industry's advisory committee told NPA.



The Most Effective Method OF POWER TRANSMISSION SERVING INDUSTRY TODAY...

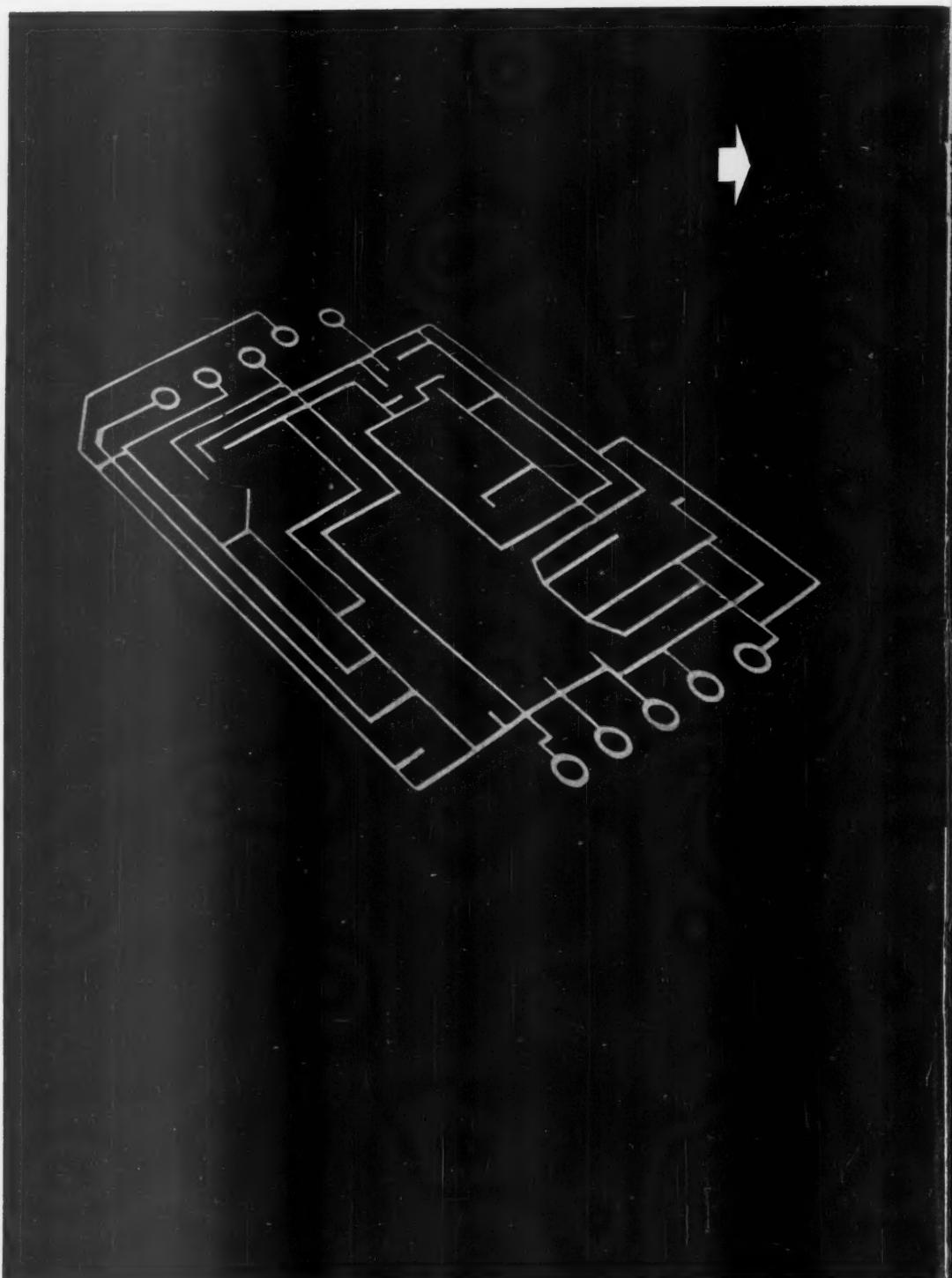
12 years ago Reliance introduced the V*S Drive . . . a tremendous forward step in the evolution of the application of power—an electrical transmission. It placed at the service of industry the most effective method of power transmission in use today! Operating from a plant's A-c. circuit, V*S provides controlled acceleration and deceleration—quick, smooth starts and stops—reversal at any point as well as an infinite range of stepless speeds. Here is flexibility of operation which pays big dividends in greater production—and lower operating costs. *Do you have it?*



Sales Representatives in Principal Cities

RELIANCE ELECTRIC AND
ENGINEERING CO. •
1069 IVANHOE ROAD • CLEVELAND 10, OHIO
CANADIAN DIVISION: WELLAND, ONTARIO

*Write for Bulletins
311 and D-2101*



INGENIOUS MAZE...

If you've ever peered into the back of a conventional radio chassis, you've seen a maze of multi-colored wires . . . festooned with capacitors and soldered connections . . .

A new method of wiring electronic equipment is revolutionary . . . it's simply painted or printed through a stencil with metallic inks to carry the current . . . or stamped out of thin metal sheets! These methods may well make mass production circuits possible at staggering savings in time and costly hand labor . . .

HOW MANY MINDS...

How many nimble brains have given their ingenious best to make these savings possible? Physicists, radio and electrical engineers . . . technicians and designers . . . metallurgists and tool makers, inventors and chemists . . . these and hundreds of others have made their contributions.

AMERICA WORKS LIKE THAT...

Pooling brains and ingenuity is a work method uniquely American. Here, every art, every science, every human skill has the incentive and the opportunity to add its bit of invention or insight to the greater whole.

America can work like that because it has an all-seeing, all-hearing and reporting Inter-Communications System.

THE AMERICAN INTER-COM SYSTEM...

Complete communication is the function, is the unique contribution of the American business press . . . a great group of specially edited magazines devoted to the specialized work areas of men who want to manage better, design better, manufacture better, research better, sell better.

And it is reassuring, in the light of today's production requirements and problems, to know that: *No country in the world has a business press that can compare in size, character, or ability to serve, with that of America . . .*

WHY WE HAPPEN TO KNOW...

The McGraw-Hill business publications are a part of this American Inter-Com System.

As publishers, we know the consuming insistence of editors on analyzing, interpreting, reporting . . . on developing universal acceptance of new ideas . . . on making sure that specialized information reaches interested people quickly and regularly.

As publishers, we know that people pay to subscribe to business publications for the sole purpose of listening in on units of the American Inter-Com System.

As publishers, we make the advertising pages of our business publications available for your communications with the people who make up your markets.

McGRAW-HILL PUBLISHING CO., INC.

330 WEST 42nd STREET, NEW YORK 18, N. Y.

HEADQUARTERS FOR BUSINESS INFORMATION





MILLION-MILE IDEA FROM WATCHING THE BIKES GO BY

From the way bicycle tires resisted the abrasion of cobblestone roads came an invention which is now an essential lifeline of the American industrial economy.

It was in 1891 that Thomas Robins first covered a conveyor belt with rubber and proved it tougher than steel when handling heavy bulk materials.

The rubber-covered belt is but one of scores of "firsts" to come from Hewitt-Robins . . . in belting, in hose, in machinery—in better ways to handle and process solid or fluid bulk materials.

Today you get still another "first"

when you turn to Hewitt-Robins for belt conveyors. You get the *complete* job. Hewitt-Robins is the first and only organization in the world that supplies engineering, specialized machinery and *belting* from within its own corporate structure. Hewitt-Robins alone is able to take undivided responsibility from drawing board to production run.

Our three industrial Divisions work individually or as a team, depending upon the problem and your need. Next time materials handling is *your* problem, we invite you to make it *ours*.

HEWITT  **ROBINS**

Executive Offices: 370 Lexington Avenue, New York 17, N.Y.

HEWITT RUBBER DIVISION: Belting, hose and other industrial rubber products

ROBINS CONVEYORS DIVISION: Conveying, screening, sizing, processing and dewatering machinery

ROBINS ENGINEERS DIVISION: Designing and engineering of materials handling systems

HEWITT RESTFOAM DIVISION: Restfoam® mattresses, pillows and comfort-cushioning

Hewitt-Robins is participating in the management and financing of Kentucky Synthetic Rubber Corporation



HEWITT-ROBINS BELT CONVEYORS
range from thin Sectional Conveyor, which is easily assembled at the site by your own workmen, to specially-engineered multi-mile belt conveyor systems.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

APRIL 21, 1951



Stalin aims to come out high man in the Truman-MacArthur feud.

The details of what he has up his sleeve are, of course, unknown. Time alone will tell. But whatever the Kremlin decision, the West is in for some rough bumps.

Communists everywhere are hailing MacArthur's fall from grace as a great victory for the world "peace front."

Don't let that fool you. It's double-talk. The hard-headed Soviet leaders know that Truman's move isn't the beginning of an "appeasement" policy.

And don't put much stock in the new crop of Korean-Chinese "peace feelers." Most experts take a dimmer than dim view of them.

But they'll keep coming. Now that MacArthur is out, Prime Minister Nehru of India is playing mediator once again.

The Soviets will use the MacArthur episode to put a new strain on the Atlantic Alliance. That's what they're really up to.

True, MacArthur's ouster smoothed over the sorest point between the Allies. But many basic problems remain. For example: Britain still thinks that Red China should sit in on the Japan peace treaty and that the treaty should recognize Peiping's ultimate right to Formosa. Also, London believes in an eventual U. N. seat for Mao Tse-tung.

Washington, of course, scowls at this.

Soviet tactics to split our allies could take several forms.

For one, there's talk of a new Russian scheme for a Five Power conference—Red China added to the Big Four. Deputy Foreign Minister Gromyko dropped a hint to that effect in Paris last week. London doubtless would agree to it. So would the French. But Washington would almost certainly turn thumbs down.

Iran is another danger spot. The Russians want their Iranian stooges—the Tudeh party—to stir up as much mischief as possible in the troubled oil fields. Moscow figures that, if this threatens Britain's oil lifeline enough, maybe the Labor government can be blackmailed into playing ball with Soviet "compromise" arrangements in Germany and the Orient.

Britain seems more willing lately to make small concessions in the hopes of easing world tensions.

Foreign Secretary Morrison is anxious for some diplomatic successes—if the price isn't too steep. He needs them to placate the Labor left-wingers; he wants victories in foreign affairs as an offset against the Attlee government's defeats at home.

On the other hand, Ernest Bevin's death makes a summer election more probable. If the Conservatives take over, you may see a toughening of Britain's Communist China policy.

U. N. Secretary General Trygve Lie said a mouthful last week in Belgrade: He told the Yugoslavs that the U. N. would act as it had in Korea in case of aggression.

That raised the question whether Lie had Washington backing for such a statement. As yet, there's no indication that the National Security Council or the Joint Chiefs of Staff have decided on U. S. intervention in a Balkan war.

But the U. S. is sending Tito \$29-million worth of arms aid; and U. S.-

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
APRIL 21, 1951

British military discussions with Belgrade have reached an advanced stage. Meanwhile, the U. S. and Britain have just about the largest peacetime fleet ever assembled patrolling the eastern Mediterranean.

There's a red-hot scandal in West Germany over illegal trade with the Soviet East Germans.

Some reports indicate that from 40% to 70% of the entire interzonal trade is escaping government supervision.

Socialist leader Kurt Schumacher is riled up. To him, the undercover commerce means ECA funds for the West are indirectly helping pay East Germany's reparations to Russia and equipping Soviet arms plants, too.

Gen. de Gaulle's political star is rising in France.

A nationwide French survey forecasts that the upcoming general election will give him the largest single group in the National Assembly. And if the three Third Force parties thereafter can't maintain a solid front, de Gaulle and the Communists can stymie all government action.

Such a situation might tempt de Gaulle to try this post-election strategy: Tie up the Assembly, then push for an early second-round election and a working majority.

De Gaulle would be a tough partner for the West to deal with in the Atlantic Alliance.

Criticism of the present setup is a pillar of his campaign. He thinks Frenchmen should have more say in Eisenhower's long-range strategy. He argues that France should have a firm guarantee that it will be defended in exchange for letting the U. S. Air Force use North African bases.

The Administration has turned down all plans to consolidate foreign aid operations.

President Truman has decided that the State Dept. should keep the Point 4 program. ECA can continue to handle economic assistance to Europe and stopgap aid to Asia. But State will have the big say in distributing the money Congress appropriates to all the agencies.

The decision flies in the face of recommendations of two Administration-appointed groups: the Gray committee and Nelson Rockefeller's Advisory Board on International Development. Both urged a single agency with ECA as its core.

There's a real rhubarb in Washington over copper prices. The State Dept. wants the Economic Stabilization Agency to lift the ceiling on the red metal from Chile.

ESA's present limit is 25.5¢; State wants a three or four cent increase. State argues that Chile needs the higher price for political reasons, that Chile can get the higher price in other markets.

But ESA warns that Chilean imports make up a third of U. S. copper consumption. A higher price for Chilean copper means a higher price all around.

Rio de Janeiro reports that Brazilian officials and the World Bank have their heads together over a big new investment program.

They're talking about a series of projects that may amount to \$250-million over the next five years. Hydroelectric power, chemical plants, and transport facilities head the list.

BUSINESS ABROAD



Japan Asks: After MacArthur, What?

TOKYO—The dust is beginning to settle in Japan. The shocked, bare-headed crowds that saw MacArthur on his way have long since broken up and gone back to work.

• **Poor Substitute**—MacArthur's Olympic status among the Asians, however, has often been overdrawn. A Japanese cabinet minister once put it this way: "We, too, had several MacArthurs among our military governors during the war, so you must realize we are quite aware of his relative position. He is a good soldier and a sincere administrator, but, I'm afraid, a very poor substitute for a Shinto God."

• **No Change?**—Nevertheless, his removal creates a new situation here—one that has both Washington and Tokyo jittering nervously on the delicately balanced diplomatic seesaw. Washington insists that the change in command means no change in U.S. policy toward Japan. Japanese hope that's true and that, if all goes well, they will do as well under Gen. Ridgway as under MacArthur—and maybe even better.

In the U.S. the question is whether President Truman seriously jeopardized its position in Japan by the shift. There's no doubt it rocked the boat at a critical time; Washington is worried that the Japanese will interpret MacArthur's removal as a weakening in the

U.S. stand against communism in the Far East, an indicator that we would abandon Japan if the going got rough. That idea would surely upset the political balance in Japan and encourage a dangerous neutrality wave.

• **Dulles' Job**—That's why Ambassador John Foster Dulles, master architect of the Japanese peace treaty, is in Tokyo this week. He's there to assure Japan's leaders that there's no change in U.S. policy, that the peace treaty will go as scheduled, and that Japan can count on us for help.

If Dulles succeeds—and there's every hope he will—there are good grounds for believing the potential tempest will blow over harmlessly.

• **War Fears**—The Japanese feel a lot better now that President Truman has reaffirmed the U.S. intention to "limit" the war in the Far East. Japanese have a sneaking suspicion—and the State Dept. concurs—that their islands are Russia's ultimate objective in the Korean war. The Kremlin would give its eye teeth to use Japan's industrial plant, its skilled labor reservoir, its ice-free ports for world conquest.

For that reason, the Japanese are dead set against any move that might court all-out war in the Orient. An enlarged war would remove Japan from its status as a "privileged sanctuary." It's easy to imagine the Japanese re-

action to another round of bombing—atomic or otherwise. Besides, at the present time the Japanese aren't at all sure that the U.S. can successfully defend them in case of an all-out assault.

• **Anti-Chiang**—What's more, Japan shares the official U.S. attitude toward Formosa—not MacArthur's. The Japanese have a low opinion of Chiang Kai-shek's fighting capabilities. Some observers think that the prospect of Chiang lunging toward the Chinese mainland would surely create a neutral "appeasement" frame of mind among the Japanese.

• **Foreseen**—The loss of MacArthur isn't so great a blow to the Japanese as many reports have indicated. True, its suddenness was a deep shock; but they have known for a long time that he was to leave as soon as the peace treaty was initialed.

The Japanese called MacArthur "Oyaji" (Old Man); they thought of him as representative of U.S. authority, not an authority unto himself. And if the President chose to fire him, it was not for the Japanese to ask why. Inbred discipline—the very factor that enabled MacArthur to rule so well-made explanations unnecessary.

• **New Broom**—That discipline will assure Gen. Ridgway the same support as MacArthur got. Most observers agree that Ridgway will bring a new



Weighing in at 3 ounces, this little fellow will weigh out at just the right size for broiling in another few weeks. Three out of every 10 springers are raised in the Midwest 8 states.

Peep Show . . .

Midwest Stage Set for Production of 200 Million Chicks

"Now showing" in the Midwest 8 states' theater is the greatest peep show on earth. More than 200 million chicks, all peeping their lungs out, have joined the chorus since early spring hatching began.

It's quite a show—and profitable one for the 1,267,706 subscribers of the five localized publications of the Midwest Farm Paper Unit. Flocks average more than twice as large as in the other 40 states. These 8 of the 48 states raise 30.2% of the nation's chickens.

The percentage figures, from a U.S. Bureau of Census survey, are further proof of the Midwest Unit's claim that it serves "the richest farm market in the world." It's a market where "mass is class" and your sales potential is proportionately high. How high you can determine for yourself from the Census Bureau's survey. Ask to see this informative study.

MIDWEST *Farm Paper* UNIT

The Farmer (Minnesota and the Dakotas)
Wallaces' Farmer and Iowa Homestead
Wisconsin Agriculturist and Farmer
Nebraska Farmer
Prairie Farmer (Illinois and Indiana)

CALL YOUR LOCAL MIDWEST REPRESENTATIVE
MIDWEST OFFICES AT:

258 Park Avenue, New York . . . 59 East Madison Street,
Chicago . . . 542 New Center Building, Detroit . . . Russ Building,
San Francisco . . . 1324 Wilshire Boulevard, Los Angeles.

broom to the somewhat ingrown supreme headquarters in Tokyo. He is already gathering a fresh staff from the best available men.

The new Tokyo setup won't in any way be a one-man show. Ridgway considers winning the Korean War his primary job. He's likely to ask Washington to send him a top-flight civilian to act as Deputy Supreme Commander to handle civil affairs.

• **Responsibility**—There's a chance that the Japanese will get a dose of real responsibility in running their country now. They would like to see the elimination of some of the unwieldy civil functions of the occupation. For example: The civil information and education sections of SCAP would go to the Japanese, though probably the State Dept. would still keep an eye on them. The public health, welfare, and natural resources groups would be turned over, with U.S. technical advisers available to help the new Japanese agencies.

Economic affairs is an important area for the Japanese to try their skill. The present economic section of SCAP is overlarge and bulky; there's hope that a small, first-class U.S. team can take over the function to advise the Japanese and maintain financial policing.

Of course, SCAP would retain final authority—the right to take over railroads and other installations in time of trouble. Still, such a setup would be good for the Japanese, who never had real compulsion to assume responsibility under MacArthur.

• **Treaty as Before**—As for the peace treaty, MacArthur's dismissal won't affect the schedule at all. Most nations are expected to sign a treaty closely following the published U.S. draft by next fall. But the Japanese don't believe it will become effective until next year—they expect Australia, Britain, perhaps even the U.S. will drag their feet considerably over ratification.

Actually, many Japanese don't seem overeager for the treaty at the moment. In the local election campaign now under way, the growing Socialist party is stirring up feeling against a treaty that doesn't include all Japan's former enemies—which means any treaty that Russia won't sign. Though the Socialists probably won't upset the treaty apple-cart, they're very likely to gain strength.

The Japanese feel that under the Occupation they're not responsible for the use of their facilities in the Korean War—but treaty would make Japanese approval mandatory. The prospect of such responsibility embarrasses them: They don't want to offend the U.S., and they are equally unwilling to antagonize Communist China further.

• **Mainland Trade**—The Japanese want to maintain good relations with Peiping.

They feel that a resumption of the Japan-China trade is their only long-run hope for self-support and economic independence. Japan badly needs mainland iron ore, coking coal, soy beans, salt.

But since normal trade isn't in the cards, Japan will insist on one overriding condition before it cooperates with the U.S. wholeheartedly. It will hold out for minimum supplies of raw materials and foodstuffs, along with a subsidy to keep going. The closest estimate of the cost of this aid runs about \$200-million to \$250-million for the first year starting now; this would probably increase anywhere from 10% to 20% until Far Eastern trading returns to normal.

BUSINESS ABROAD BRIEFS

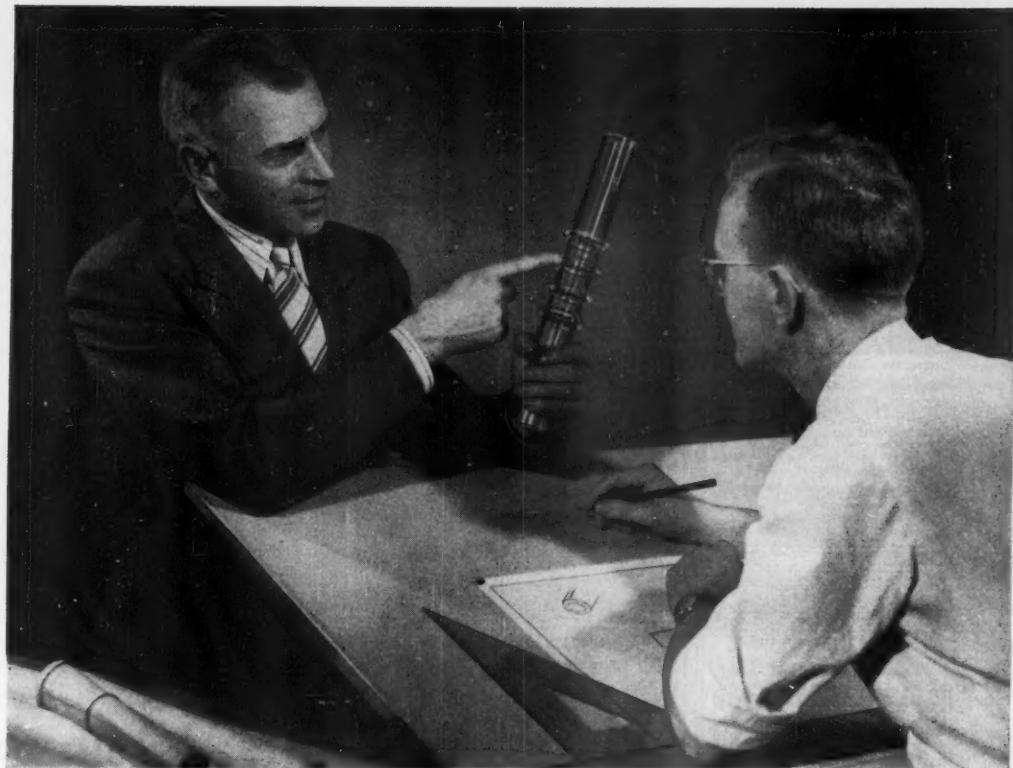
Preston Tucker, the one-time auto magnate, is causing quite a stir in Brazil where he's visiting. Newspapers there quote him as saying he could manufacture 3-million autos annually in Brazil in four years' time—provided he got a five-year tax exemption and permission to import machinery worth \$1-million.

Sulfur shortage: Britain may ease its squeeze with a new \$11-million sulfuric acid plant that will use anhydrite (a calcium sulfate) instead of sulfur. Several large acid-users are backing the project, which should be turning out 150,000 tons of acid yearly by 1953. . . . Export-Import Bank has loaned Mexican Gulf Sulphur Co. and its Mexican subsidiary \$1,875,000 to open a new mine in Tchuanatepec, Mexico. Engineers estimate it can produce 200,000 tons of sulfur yearly by mid-1952.

U.S. investors have steadily increased their stake in Canadian Pacific Ry. They now hold 48% of the common stock; six years ago it was only 32% of the common. British investors still have control, with 51% of the voting power.

Oil tankers—46 of them—will be built for the Royal Dutch Shell group by British and Dutch shipyards. The \$126-million order is one of the largest ever in the oil business, will take four years to complete.

Cleveland city fathers are well-pleased with their buying abroad for their municipal light plant. The first of two 25,000-kw. turbo-generators from Brown-Boveri Corp., Baden, Switzerland, arrived right on schedule. The city saved \$527,000 (the cost of a third machine) by awarding the contract to B-B rather than to a domestic manufacturer.

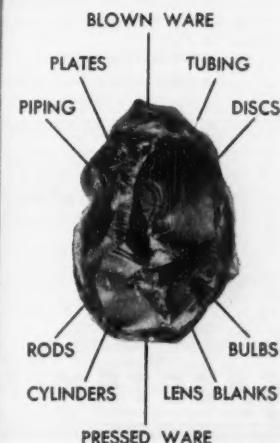


Don't Let Material Shortages Stump You . . . INVESTIGATE GLASS BY CORNING

Glass is one of the most versatile materials available. Corning technicians have developed over 50,000 formulas to meet a wide range of uses for glass. So don't let material shortages stump you without at least looking into the possibilities of glass by Corning.

Usually, most requirements can be met by the glasses Corning has in day to day melt . . . glasses which have a high dielectric constant, extreme resistance to physical or thermal shock, exceptional chemical stability, precise optical characteristics . . . uniform properties, no matter what the need.

Extensive design experience plus ample and diversified manufacturing facilities, make it possible for Corning to offer glass in almost any shape or form desired. Surely it would be worth a letter to find out how we can help you. Write today.



CORNING GLASS WORKS, CORNING, N. Y.

Corning means research in Glass

1851 - 100 YEARS OF MAKING GLASS BETTER AND MORE USEFUL - 1951

FOR THE LETTERHEAD OF A GENTLEMAN



The oldest and most respected name in fine bond paper. Made in white and seven colors. Write for sample book.

BYRON WESTON CO., DALTON, MASS.

LIGHT METAL FABRICATING

Here are fabricating and assembly facilities to tie in with your production . . . large or small runs. We welcome work as subcontractors. Send parts, blueprints, or write to:

Warren Steel Specialties Corp.
1311 Miles Ave. Warren, Ohio

FOR IMMEDIATE SALE

Mfg. Small Gears And Well Known Speed-Reducer Line

Now Operating At Substantial Profit

Located in large industrial city. 20 years successful operation. Average annual sales volume \$500,000. 1951 volume will exceed \$1,000,000 with substantial profit realized. All corporate stock owned by present management. Replies will be held in strictest confidence.

Please write to:

Box 9483, Business Week
520 N. Michigan Ave., Chicago 11, Ill.

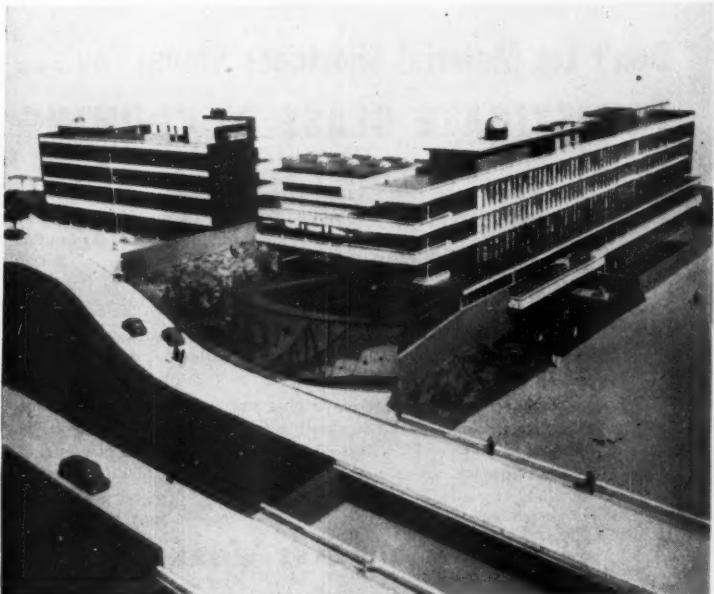


You advertise
in Business Week when
you want to influence
management men

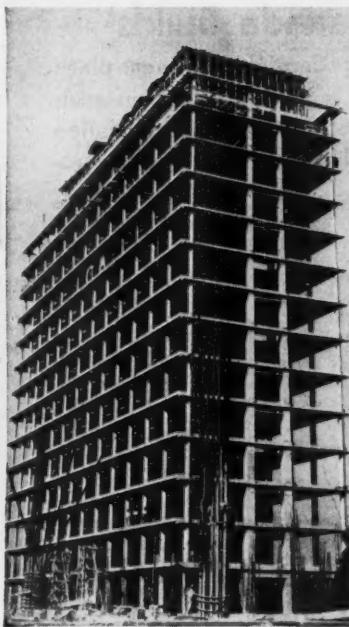


CLASSROOMS at University of Mexico have a new construction wrinkle: Each one is built as a lecture hall, with a ready-made slope for easy view of the professor and experiments.

Mexico Builds Its Version of



ENGINEERING SCHOOL will look like this model, last word in college design.



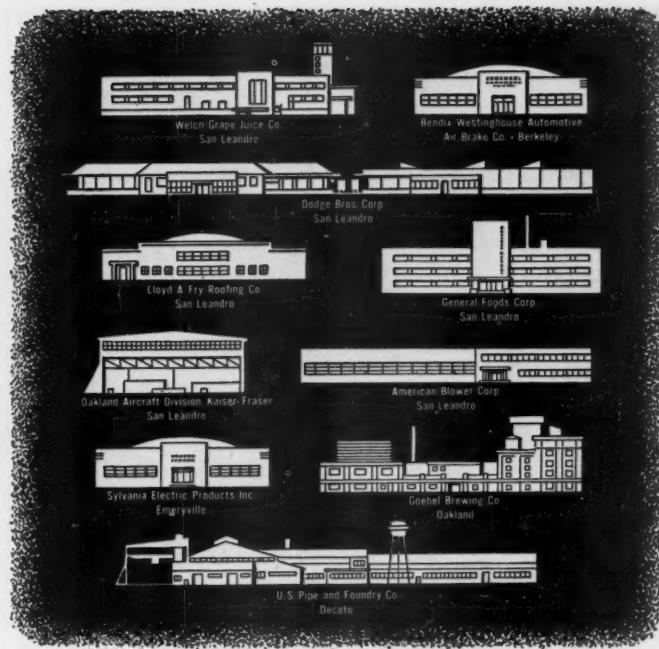
SCIENCE SKYSCRAPER—15 stories—will house all kinds of labs and classrooms.

Ivied Halls

Fine new educational facilities are as much a sign of an expanding economy as new factories, stores, and dams. Mexico is bustling with such omens; the government and the alumni of the University of Mexico are building one of the largest, most modern campuses in the Americas.

The new campus—spread out over 482 acres just outside Mexico City—will be ready for some students in the fall. It's to replace entirely the present, antiquated university buildings scattered haphazardly throughout the downtown district. When it's finished, 25,000 students will commute to school—only 1,000 will live on campus.

The rakish buildings on these pages give you an idea what the Mexicans are after. Besides these, they're building dormitories, a physics institute with atom research facilities, and schools of law, economics, business administration, philosophy, medicine, architecture, geology. And there'll be plenty to do, come recess. The students will have the run of three baseball fields, three football fields, tennis and basketball courts, a lake, a diving pool, and a huge, bowl-shaped Olympic stadium, designed to seat 140,000.



YOU can profit by what they gain in MOA

178 national concerns have located Pacific Coast branch plants in MOA (Metropolitan Oakland Area—including all of Alameda County, Calif.). The ten plants sketched above are among the latest arrivals.

No plant was lured here by offers of free sites or tax concessions. Each came to get one or more of the *extra profit* opportunities a MOA branch plant offers. These include:

Greater labor productivity (a steel processor and a canner report 8% and 10% higher man-output than in their other plants); year 'round

ideal climate; low-cost distribution with faster service to far-western customers (U. S. Pipe & Foundry Co. anticipates time savings up to 6 weeks); and a location central to all this Pacific Coast whose 14 million customers make one of the nation's top markets.

If you can profit by any of the PLUS-Values these firms enjoy because of their location in the Metropolitan Oakland Area, write for the full story. Ask for:



**FREE FACTBOOK:
"WHY THEY CHOSE THE
METROPOLITAN OAKLAND
AREA"... now ready for
mailing**

MOA METROPOLITAN OAKLAND AREA CALIFORNIA
Suite 15 • 427 Thirteenth Street • OAKLAND 12, CALIFORNIA
SITES ALAMEDA • ALBANY • BERKELEY • EMERYVILLE • HAYWARD • LIVERMORE
OAKLAND • PIEDMONT • PLEASANTON • SAN LEANDRO • RURAL ALAMEDA COUNTY



GARDNER-DENVER

**fills a breach in the
manpower roll call**

We call it a Mine Car Loader. But today, more than ever, the machine you see working here is a valuable manpower multiplier. It does the work of many men shoveling by hand—helps the mining industry boost production of vital minerals and metals—with fewer men.

In your business, too, there may be many ways Gardner-Denver rock drills, pumps, compressors and other pneumatic equipment can multiply your production per man-hour. Write Gardner-Denver Company, Quincy, Illinois.

SINCE 1859

GARDNER-DENVER

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

Canada Builds

Capital investment plans hit a new high. But materials shortages, new depreciation policy may clip spending.

More than anything else, Canadians owe their skyrocketing industrial growth to a high rate of capital investment (BW-Dec. 23'50,p41). Last year they spent \$3.8-billion on new capital—five times as much money as capital spending 10 years ago.

This year, despite all the pressures of rearmament, Canadians have raised their sights again. Canada's Dept. of Trade & Commerce reports that business and government together plan to spend \$4.3-billion on new plant and equipment this year.

• **Government Hurdles**—There's some question, however, whether spending will actually have hit that high a target when the year is out. A shortage of materials—particularly steel—will discourage some plans. And the government recently announced a policy on depreciation allowances that may curtail much nonessential building.

• **Spending Breakdown**—According to the Trade & Commerce Dept. report, private and public spending plans break down this way:

	Capital Spending	
	(Millions of Dollars)	
	1951	1950
Business	\$2,170	\$1,945
Institutions and housing...	937	851
Total Private	3,107	2,796
Total Public	1,221	995
Total	4,328	\$3,791

The 11% increase in private investment is in part a result of Canada's defense spending—pegged at \$5-billion over the next three years. That's particularly true of the big doings in the mining, chemical, and iron and steel industries. All in all, the manufacturing industries account for the lion's share of the increase in business spending. They're down for a 38% boost over last year.

The increase in public outlay of 23% is due mainly to new defense installations, rolling stock for the state-owned railroads, plus local services like waterworks, streets, education, and health.

• **Deferred Depreciation**—About a week after the Trade & Commerce Dept. figures came out, Finance Minister D. C. Abbott announced a new policy on depreciation allowances that he said would be "a stiff financial deterrent" to the sort of business investment that is attractive only because it can be written off in a short time.

In the U.S. and, until recently, in

Canada the policy has been to accelerate depreciation of capital assets for tax purposes to stimulate greater production. Abbott has just reversed this. As of Apr. 10, only selected essential industries in Canada will be given normal depreciation allowances. Others must defer for four years any writeoff whatever of capital assets acquired after Apr. 10.

• Credit Restrictions—Both businessmen and bureaucrats are going to find

it hard to borrow money for capital spending—and their projects will have to be essential "to the defense and welfare of the country." The Bank of Canada has applied brakes to credit expansion, and chartered banks have agreed not to make loans for capital purposes.

• Steel Shortage—The big pinch in materials is steel. The supply isn't nearly enough to maintain present construction and meet defense needs, too.

C. D. Howe, Minister of Defense Production, figures that Canada could use 5.5-million tons of steel during the year. The most optimistic estimate of supply runs around 4.3-million tons—counting on imports from the U.S. of 14-million tons.

Canadians expect a 20% cutback in the amount of steel used for civilian goods soon. Also in the offing is a "utility goods" program that will cut out "trimmings" on consumer items.

ADVERTISERS IN THIS ISSUE

Business Week—April 21, 1951

THE ADDRESSOGRAPH-MULTIGRAPH	43
Agency—The Griswold-Eshleman Co.	61
AEROQUIP CORP.	136
Agency—Hooper-Keller, Inc.	136
AIR REDUCTION SALES CO.	60
Agency—Batterson, Bradford Co.	60
ALLEN-BRADLEY CO.	29
Agency—The Fensholt Co.	29
ALLIS-CHALMERS MANUFACTURING CO.	2-3
Agency—Compton Advertising, Inc.	2-3
ALLISON DIV., GENERAL MOTORS CORP.	85
ALUMINUM CO. OF AMERICA	120
Agency—Fuller & Smith & Ross, Inc.	120
AMERICAN BLOWN CORP.	36
Agency—Batterson, Bradford & Dorrance, Inc.	36
AMERICAN GAS ASSOCIATION	63
Agency—Ketchum, MacLeod & Grove, Inc.	63
AMERICAN LUMBER & TREATING CO.	71
Agency—Gardner Advertising Co.	71
AMERICAN OPTICAL CO.	8
Agency—Sutherland-Abbott	8
AMERICAN PLATE & MFG. CO.	72
Agency—The Bayless-Kerr Co.	72
ANGIER CORP.	83
Agency—Lambert Handels Ad.	83
ASSOCIATION OF CANADIAN RAILROADS	96
Agency—Batterson, Bradford Co.	96
ATLAS POWDER CO.	65
Agency—Batterson, Bradford Co.	65
BANK OF MONTREAL	123
Agency—Doremus & Co., Inc.	123
BELLWOO CO.	98
Agency—Hoover	98
RICHARD BEST PENCIL CO.	146
Agency—Samuel C. Croft Co., Inc.	146
BILUMINOUS COAL INSTITUTE	19
Agency—Batterson, Bradford Co.	19
BLAW-KNOX CO.	107
Agency—Paul Leffson Co., Inc.	107
BOSTON INDUSTRIES	74
Agency—James Thomas Chirurg Co.	74
BRUNNER MFG. CO.	58
Agency—Comstock & Co.	58
BURROUGHS BOOKBINDING MACHINE CO., INC.	67
Agency—Campbell-Ewald Co.	67
THE W. C. BUSH CO.	40
Agency—The S. H. Baer Co.	40
BYRON WESTON CO.	156
Agency—B. Snow and Staff, Inc.	156
CARRIER CORP.	139
Agency—N. W. Ayer & Son, Inc.	139
CENTRAL PAPER CO. INC.	156
Agency—Johns-Manville Corp., Inc.	156
CESSNA AIRCRAFT CO.	136
Agency—Gardner Ad. Co.	136
CHICAGO MILWAUKEE, ST. PAUL & PACIFIC R.R.	39
Agency—Hoche, Williams & Cleary, Inc.	39
CHRYSLER CORP. AIRTEMP DIV.	40
Agency—Grant, Inc.	40
CLARKE CO.	48
Agency—W. J. Williams Ad. Agency	48
CLEVELAND ELECTRIC ILLUMINATING CO.	89
Agency—D'Arcy Ad. Co.	89
CLUES CORP.	138
CONNECTICUT GENERAL LIFE INS. CO.	87
Agency—Edwards, Green & Associates	87
THE COOPER-BESSEMER CORP.	99
Agency—The Griswold-Eshleman Co.	99
CORNING GLASS WORKS	155
Agency—Charles L. Rumrill & Co., Inc.	155
CRANE CO.	77
Agency—The Buchen Co.	77
CRUCIBLE STEEL CO. OF AMERICA	91
Agency—Hoover	91
DANLY MACHINE SPECIALTIES, INC.	35
Agency—Walton and Brigs, Inc.	35
DEWEY & KELLOG CHEM. CO.	34
Agency—Credible Bureau	34
DILLON, READ & CO. INC.	130
Agency—Doremus & Co., Inc.	130
HENRY DISSTOR & SONS, INC.	75
Agency—Hoover	75
C. A. DUNHAM CO.	33
Agency—The Buchen Co.	33
E. I. du PONT de NEMOURS & CO., INC.	122
Agency—Hoover	122
DUREZ PLASTICS & CHEMICALS, INC.	110
Agency—Comstock & Co.	110
EASTERN CORP.	62
Agency—Hoover	62
EASTMAN KODAK CO.	73
Agency—Charles L. Rumrill & Co., Inc.	73
THE ECLIPSE LAWN MOWER CO.	133
Agency—Hoover	133
THOMAS-A. EDISON, INC.	6
Agency—Green Brode	6
ELECTRIC INDUSTRIAL TRUCK ASS'N.	41
Agency—Ketchum, MacLeod & Grove, Inc.	41
MOTOROLA, INC.	112
Agency—Hoover	112
NATIONAL CITY BANK OF N. Y.	2-3
Agency—Batten, Barton, Durstine & Osborn, Inc.	2-3
NATIONAL STARCH PRODUCTS, INC.	117
Agency—Hoover	117
NATIONAL STEEL CORP.	12-13
Agency—Campbell-Ewald Co.	12-13
NEW BRITAIN MACHINERY	138
Agency—Hoover	138
N. Y. STATE DEPT. OF COMMERCE	50
Agency—Batten, Barton, Durstine & Osborn, Inc.	50
NEWTON CARBON CO.	97
Agency—James Thomas Chirurg Co.	97
OTIS ELEVATOR CO.	3rd Cover
Agency—Hoover	3rd Cover
OZALID PROCESS DIV. OF GENERAL ANILINE & FILM CORP.	76
Agency—The Bissell Co., Inc.	76
PENNSYLVANIA RAILROAD CO.	145
Agency—State, Manston, Inc.	145
PHILLIPS PETROLEUM CO.	7
Agency—Lambert & Fearnside, Inc.	7
PLATINUM DIVISION OF THE BUEHL CO.	44
Agency—Batten, Barton, Durstine & Osborn, Inc.	44
PLASKON DIVISION	128
Agency—Medium & Fearnside, Inc.	128
PLAX CORPORATION	114-115
Agency—The Griswold-Eshleman Co.	114-115
POTTER & GRIFFIELD	116
Agency—LaGrange & Garrison, Inc.	116
PRESSED STEEL TANK CO.	54
Agency—The Buehl Co.	54
RAYONIER IND.	128
Agency—Geer, DuBois & Co., Inc.	128
RELIANCE ELECTRIC & ENGINEERING	147
Agency—Medium & Fearnside, Inc.	147
REMINGTON RAND, INC.	55
Agency—Hoover	55
REZNOR MFG. CO.	118
Agency—Meek & Thomas, Inc.	118
ROTARY LIFT CO.	129
Agency—Hoover	129
ROYAL TYPEWRITER CO., INC.	121
Agency—Young & Rubicam, Inc.	121
THE SHEFFIELD CORP.	102
Agency—Hoover	102
SIMONDS ABRASIVE CO.	62
Agency—Fox & MacKenzie, Inc.	62
SOLAR STEEL CORP.	95
Agency—LaGrange Holz, Hicks, Inc.	95
S. C. RESEARCH, PLANNING AND DEVELOPMENT BOARD	66
Agency—Hoover	66
SPERRY GYROSCOPE CO.	31
Agency—Chas. Dallas Reich Co., Inc.	31
THE STURGEON CHAIR CO.	126
Agency—Blaco Ad. Agency	126
SUN OIL CO.	82
Agency—Grey & Rogers	82
THE TEXAS DOOR CO.	20
Agency—Cunningham & Walsh, Inc.	20
THE THW SHOVEL CO.	135
Agency—Hoover	135
TOWMOTOR CORP.	4
Agency—Howard Swink Ad. Agency	4
TRANS WORLD AIRLINES, INC.	78
Agency—Hoover	78
TRAVELERS INSURANCE CO.	32
Agency—Young & Rubicam, Inc.	32
TWENTIETH CENTURY FIN.	90
Agency—Hoover	90
TWIN DISC CLUTCH CO.	42
Agency—Spencer Curtis, Inc.	42
UNITED CARBIDE CARBON CORP.	14
Agency—Hoover	14
UNITED-CARE FASTENER CORP.	142
Agency—Humphrey, Nichols & Richards, Inc.	142
UNITED STATES RUBBER CO.	164-165
Agency—Fletcher D. Richards, Inc.	164-165
U. S. STEEL CORP.	49
Agency—Hoover	49
THE WARREN STEEL SPECIALTIES CO.	186
Agency—Meek & Thomas, Inc.	186
WESTINGHOUSE ELECTRIC CORP.	83
Agency—Hoover	83
WESTON ELECTRICAL INSTRUMENT CORP.	143
Agency—Hoover	143
WHEELING CORRUGATING CO.	109
Agency—Cunningham & Walsh, Inc.	109
THE WHEELAND CO.	50
Agency—Hoover	50
WHITING CORP.	144
Agency—Hoover	144
WOMAN'S DAY	141
Agency—Hoover	141
WYANDOTTE CHEMICALS	103
Agency—N. W. Ayer & Son, Inc.	103
YANKEE MOTOR CO.	123
Agency—Charles L. Rumrill & Co., Inc.	123
ZIPPO MFG. CO.	100
Agency—Geyer, Newell & Ganger, Inc.	100

The General Comes Home

President Truman's dismissal of Gen. MacArthur is the culmination of a failure all along the line to deal adequately and in time with the Communist menace in the Far East.

Surely the general knew the fate he courted when he elected to flout the orders of his superiors. He might have retired and returned to the United States to urge his views on Congress and the country. Perhaps he felt this course was not open to a commander facing an imminent enemy offensive. But when it was possible to do so weeks ago, he chose the other course of open defiance. There was nothing for the President to do at this late date but relieve him.

MacArthur's insubordination is only part of this humiliating failure. On the Joint Chiefs of Staff falls some of the blame for failing to work out with their subordinate in Tokyo an agreed plan for dealing with the security of America and our allies in the Far East. A major part of the responsibility must fall on the Administration. The President and his Secretary of State have not been able to set at rest very widespread doubts about what they were doing in the Orient to protect our interests. The proof is that Gen. MacArthur has been able to get such a considerable audience for his views.

Basic Issue Remains

The general may not always be easy to deal with, but it is incredible that a policy could not have been worked out months ago. Why was this not done at Wake Island where the President and the general met in what was described as complete harmony? Later, why was MacArthur not ordered home to consult personally with the Joint Chiefs of Staff?

The issue that forced the showdown between the President and the general remains: How do we and the United Nations deal with the Chinese aggression in Korea now?

The general's proposal for bombing Manchuria and using Chinese Nationalist troops runs a real risk of launching World War III. But the President's course of holding on in Korea and, like Micawber, hoping something will turn up is alien to our national experience. Gen. Ridgway has said that the war in Korea cannot be ended by military action. Fighting a defensive war is not in the tradition of American field commanders. The American people are deeply troubled about this war that can't be fought to victory on the battlefield.

Such is the bristling issue laid bare by the MacArthur ouster. If any lasting good is to come of the general's dismissal, it must help lead this nation and the United Nations to a clear decision as to our course in Korea.

It is right for the general to present his views to the Congress and the country and so to our allies. This he can be expected to do on the basis of issues and not of men.

But if the nation is to be spared a tragic political trauma in the process, party leaders must use restraint. Talk of impeachment proceedings against the President is silly and irresponsible. A far-reaching decision on how to defend the free world must be made. Too much is at stake to play partisan politics with the making of it. A heavy responsibility to resist this alluring temptation rests upon the shoulders of the President, the general, and the party leaders.

Grain for India

Indignant at the failure of Congress to heed India's request for grain to fight famine, farmer Nathan Horwitt of Lenox, Mass., has given twelve 100-lb. bags of wheat as his private contribution to the cause.

This citizen's action dramatizes the twinge of conscience felt by many Americans about this grain-for-India affair. It is true that India has not been too cooperative in supplying us with certain strategic materials. The ideas of Nehru on how to resist world communism also have been hard for Americans to understand. And there is some real concern that, if we undertake to fight famine in India, we will have an endless job on our hands. While these and other objections occupy us, there are reports of Red Chinese offers of a million tons of food grains for India.

In the end Congress no doubt will approve the grain-for-India project. The action will be late, but not too late, we hope, to save some lives and satisfy our own consciences. For that, and not the intricate arguments of high policy, is really what is at stake.

Frog in the Voice

The House Appropriations Committee said recently that the Voice of America could be the best medium "for a campaign of truth that has yet been conceived." It then cut 90% of the Voice's expansion program.

Justified or not, the action fails to meet the need. Last year Congress approved the building of enough new radio transmitters to spread America's "campaign of truth" around the world. Since that time, tensions have heightened. The Voice has needed new facilities before the old schedules made them available. This year it asked for a lump sum to speed up a program meant to be spread over three years. It was this request that felt the committee axe.

The Voice may be poorly planned and badly run, but the way to remedy these defects is not to put a frog in it. The propaganda it broadcasts is one of our major weapons in the international conflict of ideas. If our campaign of truth is to do its work, it needs the best instrument it can get. Congress should not mutilate the Voice, but improve and expand it.



AN ELEVATOR BUTTON YOU'LL NEVER PUSH

Passengers can't help being curious. Signaling for an elevator is no longer a push-the-button-and-wait routine. It's an exciting, even mystifying, experience with the Otis electronic touch button. Nothing moves. A mere touch of a finger excites an electronic tube behind the directional arrow. The tube lights. Registers the call. And a car arrives, *as if by magic!*

Otis electronic touch buttons, in both new and modernized buildings, dramatize another great advance in elevating by the Otis staff of design and research engineers that combines

2,017 years' experience of 75 key men with the exuberance of 125 younger men, to set the standards for the industry. This well integrated experience is available to everyone with a vertical transportation problem. However large—or small.

Add Otis elevator engineering to Otis elevator research, planning, manufacturing, construction and service and you have the reasons why the Otis trade-mark is the symbol of the world's finest elevating. **Otis Elevator Company, 260 11th Avenue, New York 1, New York.**

BETTER ELEVATORING IS THE BUSINESS OF

REG. U. S. PAT. OFF.





Fun Over 60

Today, it's much more fun to be alive because the average lifetime is longer, more active and useful in its later years. Progress in medicine and pharmacy is making it so.

Chemistry contributes much to the business of living longer and better. In this, Monsanto has played an active part for half a century—beginning in the days when medicine started accomplishing so much to reduce childhood ills.

Now, when many onetime deadly children's diseases have been conquered, more attention is being centered on geriatrics. This is a division of medicine concerned with the diseases of age. Here, too, Monsanto chemicals help in adding years filled with a greater sense of well-being and well-doing.

All through life—from childhood to old age—chemistry brings relief from pain and fever. For instance—there are many Monsanto chemicals employed for their specific curative value. The sulfa drugs are important in this group. Antibiotics are increasing in use. So are antitubercular agents—a family of chemicals now in varying stages of clinical study. In addition, research is constantly exploring newer and better applications.

In these, and many other ways, chemistry continues to aid medicine and pharmacy—helps mankind achieve more useful and enjoyable living before and after 60.

Monsanto Chemical Company, 1724 South Second Street, St. Louis 4, Missouri. In Canada: Monsanto (Canada) Limited, Montreal and Vancouver.

Meeting the nation's needs

Described here are only a few of the many Monsanto chemicals and plastics important to manufacturers of medicinal and drug products. Their production and availability are geared to meet current demands of the national economy.



Saccharin is one of Monsanto's earliest products. It is a powerful sweetening agent, having 375 times the sweetness of sugar. Since it has no food value whatever, it is of special value in dietary conditions where the use of sugar is either restricted or ruled out entirely.



Manufacturers of medicinal and drug products are adopting packages and containers made of **Lustrex™**—Monsanto's styrene molding compound. Comes in a wide variety of colors, including crystal clear... Another Monsanto plastic—**Resinox™** phenolic—is widely used in pharmacy for many types of bottle and jar closures.



Acetophenetidin and **acetosalicylic acid** (aspirin) are two Monsanto pharmaceuticals widely used where relief from pain and fever is indicated... **Caffeine** is another chemical made by Monsanto, world's largest producer... In the fields of nutrition and medication, many Monsanto phosphate products play important roles.

WRITE FOR INFORMATION—Manufacturers and formulators of pharmaceutical products are invited to consider Monsanto as their source of dependable supply... Of added interest are Monsanto's custom-manufacturing facilities, which offer important economies and assure quality products... Write for information on the following:

Antihistamines: Thenyl pyramine Fumarate... Thenyl pyramine Hydrochloride... Chlorothenyl pyramine... Penicillin precursors... para-Aminosalicylic Acid... Sodium para-Aminosalicylate... Sulfanilamide... Acetophenetidin... N-Acetylpara-Aminophenol... Salicylamid... Acetosalicylic Acid... Caffeine... Calcium Phosphates... Glycerophosphate... Phosphoric Acid... Saccharin... Methyl Salicylate... Lustrex, for containers... Resinox, for closures... Santophen® I, germicide... Benzyl Benzoate, miticide.

*Reg. U. S. Pat. Off.



Serving Industry... Which Serves Mankind